VBR Registry Keys and Config Options

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There is a number of values in the registry you may want to tune Veeam B&R: enabling alternative methods, increasing timeouts or changing default locations.

Don't apply if the description is not clear for you.

Any of the keys that don't exist in default installation or written in KB article or release notes are not officially supported and are supposed to be provided only in case of emergency or during troubleshooting. They shouldn't be a solution unless written on the issue page on xWiki.

Some registry values without descriptions or orphaned ones were moved to a different page Orphaned or unclear registry keys

Enterprise Manager registry values can be found here.

By default all values should be added to the following registry key:
HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\

Some 32-bit services are located under the following key (and it should be noticed i n the description of reg value if you need to put it there)**:**
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\

For Linux based proxy or repository you will need to manually create the 'VeeamAgentConfig' file in the /etc/ directory like so:
/etc/VeeamAgentConfig

And then write a key with a value in the following fashion:
CollectBackupStat=1

All **numeric values are in decimal unless otherwise noted**. Any time you see a value in the format like (4*60) where there is math involved, this is meant as an exa mple of the default value. Perform the math and that is the value (in this case, 240). Check the Reg Value name to understand what the metric is. If there isn't a metric mentioned (e.g., ms, sec, min, hour), you can ask in T2/T3 Chat.

Most values are read by the Veeam Backup Service, some values are read by other services or processes.

Most registry values are rescanned automatically almost instantly (during 10-30 seconds). No services restart is needed.

Some keys apply during next job run. For example, Veeam agent's keys apply when new VeeamAgent.exe starts.
General

BackupServerPort

- Type: REG_DWORD
- Default value: 9392
- Description: defines a port for Veeam Backup Service.

BrokerServicePort

- Type: REG_DWORD

- Default value: 9501
- Description: defines a port for Veeam Broker Service.

LogBrokerUpdates

- Type: REG_DWORD
- Default value: 0
- Description: enables extended Broker Service logging.

CatalogPath

- Type: REG_SZ
- Description: Location of the VBRCatalog folder that contains indexing data. To be changed in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup C atalog and restart Veeam Guest Catalog Service is required

CloudServerPort

- Type: REG_DWORD
- Default value: 10003
- Description: defines a port for Veeam Cloud Connect Service.

EndPointServerPort

- Type: REG_DWORD
- Default value: 10001
- Description: defines a port for incoming connections from Veeam Endpoint Ba ckup.

LinuxEndPointServerSslPort

- Type: REG_DWORD
- Default value: 10006
- Description: defines a port for incoming connections from Veeam Agent for Li nux.

LinuxSSHAuthenticationType

- Type: REG_DWORD
- Default value: 1
- Description: changes the order in which Linux Auth modes are used. Value 1 - means first we try to login to Linux machine via Password auth type, and if fai ls we use Keyboard-Interactive. Value 2 makes it vice versa: first Keyboard-Interactive, then PWD

SshAdditionalTtyPrompts

- Type: REG_DWORD
- Default value: Empty
- Value: Alphanumeric, for example in case of the PS1 variable from the logs w as = "\u@\h:\w/ [${ORACLE_SID}${BE_PDB:+.$BE_PDB}]" value should be "]"
- Description: If the bash prompt ends in some special characters, VBR will be u nable to parse it. The code currently accounts for terminal prompts that end i n $ # > % and spaces. This key will add another character to this code.

Remoting_UseIPAddress

- Type: REG_SZ
- Default value: true
- Description: control whether Veeam B&R must send its local IP or not (should be set to “false” to allow Veeam EM to connect over NAT). Apply on VBR.

Remoting_MachineName

- Type: REG_SZ

- Default value: none
- Description: keeps FQDN of the Veeam B&R, then if DNS won’t work, make su re your hosts file on Veeam EM server has an entry for the FQDN pointing to t he external IP address. Apply on VBR. EM must be able to resolve FQDN or Ho stName through DNS or hosts file.

RetentionDisableBackupDeletion

- Type: REG_DWORD
- Default value: 0 (enabled)
- Description: disables Background Retention Job, if the value is set to 1
- In v12 is deprecated and replaced by key SystemRetentionDisable

SystemRetentionDisable

- Type: REG_DWORD
- Default value: 0
- Description: Description: The key disables automatic start of Independent Ret ention process. It is though still possible to start it manually via UI
- In v12 replaces keys AgentDisableDeletedMachineRetention and RetentionDis ableBackupDeletion

PowerShellManagerPort

- Type: REG_DWORD
- Default value: 8732
- Description: defines a port for PowerShell Manager

SecurityScopeRebuildTimeout

- Type: REG_DWORD
- Default value: 60
- Description: The key should be created on EM server in HKEY_LOCAL_MACHIN E\SOFTWARE\Veeam\Veeam Backup Reporting.

SqlDatabaseName

- Type: REG_SZ
- Default value: VeeamBackup
- Description: Name of Veeam SQL database. The best way to change it is via " Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on whether MSSQL or PGSQL is in use.
    - v11 and earlier: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Back up and Replication\
    - v12 MSSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql
    - v12 PGSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\PostgreSql

SqlInstanceName

- Type: REG_SZ
- Default value: VeeamSQL2016 (for VBR 10 or later)
- Description: Name of SQL server instance hosting Veeam database. The best way to change it is via "Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on version of VBR

    - v11 and earlier: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
    - v12 MSSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql

SqlServerName

- Type: REG_SZ
- Default value: Equals to VBR server name
- Description: Name of SQL server hosting Veeam database. The best way to change it is via "Configuration Database Connection Settings" wizard
- As of v12 there are now different registry paths to use depending on version of VBR
    - v11 and earlier: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
    - v12 MSSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql

SQLExpressWarningThreshold

- Type: DWORD
- Default Value = 90
- Notes: Decimal Value, measured in percent. The warning threshold for when an Alert will be triggered for SQL express DB. Checks once per day. Added in: v11

SqlStatementTimeout

- Type: REG_DWORD
- Default value: 180
- Description: Helps to mitigate error "Execution Timeout Expired. The timeout period elapsed prior to completion of the operation or the server is not responding". The default is 3 minutes, so if 3 minutes passes in the logs between the beginning of operation till the error - it is a good indication that this timeout has been exceeded.
- As of v12 there are now different registry paths to use depending on whether MSSQL or PGSQL is in use.
    - v11 and earlier: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\
    - v12 MSSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\MsSql
    - v12 PGSQL: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\DatabaseConfigurations\PostgreSql

MetaGenerationTimeout

- Type: DWORD
- Default Value = 900 (15 minutes)
- Notes: Use in case metadata generation times out after 15 minutes. See case 05137332 as the prime example.

DatabaseDeadlockRetrySleepTime

- Type: REG_DWORD
- Default value: 2

- Description: when SQL server hosting Veeam database deadlock happens, aft er number of seconds set by the key SQL query retries. It can be helpful to inc rease this value to 10-15-30, if there are lots of deadlocks at the same time. Which can increase processing time, but resolve issue. Default value might b e increased in v11.

EnableAsyncMount

- Type: REG_DWORD
- Default value: 1
- Description: switch to 0 to make mounts in FLR and VESQL (and perhaps som e other restores) to synchronous. Must be applied on the server that sends th e command 'Mount.GenericMount' (in most cases it's going to be mount serve r, but double-check Svc.VeeamMount.log to verify that). When applied, the fol lowing parameter of the command 'Mount.GenericMount' will change to "false ": "Mounter.AsyncMode = true". Regkey is good for isolating recent bugs simil ar to 204397. According to QA, it might slow down restores, but not significantly and not necessarily.

DbMaintenancePeriodDays

- Type: REG_DWORD
- Default value: 7
- Description: Defines the frequency with which we perform the database main tenance task.

TombStoneRetentionPeriod

- Type: REG_DWORD
- Default value: 30
- Description: Defines retention of records in Tombstones tables of the databas e. Retention enforced on DbMaintenance task.

EnableDBExclusions

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Adds option in console menu to edit the list of SQL databases exc luded from VSS freeze.

LinuxSSHClient

- Type: REG_DWORD
- Default value: 1 (Renci)
- Description: Introduced in V11. Allows to choose, which SSH library to use.
- Values:
- 1 - Renci – failover to Rebex
- 2 - Granados – failover to Renci. Then failover to Rebex
- 3 - Rebex, in case of any failure – throw error, no failover to different libraries.
- ! To apply, you need to re-add Linux host/storage or go through its properties. Otherwise it wouldn't switch
- Mentioned in: https://www.veeam.com/kb4276

TreatDeleteSnapshotErrorAsWarning

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: ignore delete snapshot task failures and complete VM processing tasks with a warning

BlockSnapshotThreshold

- Type: REG_DWORD
- Default value: 2 (GiB)
- Description: Defines minimum free space to initiate snapshot creation task fo r a VM.
- Note: Starting in 9.5, you can feel safer about setting it to 0, because you can configure a percentage-based threshold in the notification options.

FailoverPlanScriptTimeoutSec

- Type: REG_DWORD
- Default value: 600 (seconds)
- Description: Timeout for pre- and post-failover scripts in Replcation Failover pl ans.

NfsProtocolVersion

- Type: REG_DWORD (NFSAuto = 0, NFSv3 = 1, NFSv41 = 2)
- Default value: 0 (Auto)
- Description: defines NFS protocol version for NFS repository (doesn't affect Di rect NFS anyhow!)

InfrastructureCacheExpirationSec

- Type: REG_DWORD
- Default value: 900 (seconds)
- Description: defines the amount of time vSphere hierarchy cache is being stor ed. For very large infrastructures rescan could take longer than 15 minutes (d efault).

Timeout_Sec_JobStartedMax

- Type: REG_DWORD
- Default value: 900 (seconds)
- Description: defines the maximum amount of time allowed for the backup ser vice to start a job. Can be found useful in highly loaded systems.

LinAgentFolder

- Type: REG_SZ
- Default value: /tmp
- Description: globally sets the location to which the backup server will deploy t emporary Linux applications, such as on repositories and Oracle VMs.
- Notes: Be careful not to put a trailing slash in the path. Because this setting is global, setting a path to a location that doesn't exist or lacks appropriate per missions can break features involving a Linux appliance, like Other-OS FLR.

LinAgentExecutableFolder

- Type: REG_SZ
- Default value: /tmp
- Description: Same as **LinAgentFolder** , but affects VAL MbVBR installations.

PreJobScriptTimeoutSec

- Type: REG_DWORD
- Default value: 15 * 60
- Notes: Only applicable to VB&R tasks, will have no effect on Managed Agent b ackups.

PostJobScriptTimeoutSec

- Type: REG_DWORD

- Default value: 15 * 60

AgentLeaseTimeoutInMinutes

- Type: REG_DWORD
- Default Value: 5
- Description: The Veeam Backup Service creates a lease for each VeeamAgent process, and stops the process if the lease expires. It must periodically renew each lease so that agents can exist for more than 5 minutes. You can verify th e timeout in Svc.VeeamBackup.log (example is with a value of 60):

{{{> Info [API] New lease was created. Id: [7034ffe6-ac2f-4278-8357-a5fa459f4ca2], TTL: [01:00:00]}}}

- Notes: The most common cause of lease expiration is a time change. Howeve r, if the backup service is very busy it may fail to renew a lease. This has mostly been seen in Cloud Connect Service Providers, and is under investigation. You can monitor how often a lease is renewed ("Keep lease alive") by searching for the ID in Svc.VeeamBackup.log.

MaxPerlSoapOperationTimeout

- Type: REG_DWORD
- Default value: 100000 (milliseconds)
- Description: Error "Call execution timeout (100000 ms)". See KB1176.

IgnoreFileDeletionErrorInRetention

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Described in KB1358. Current use case unclear, see VIQA.

ShowSplashScreen

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: To hide the splash screen that appears while the console is loadin g, set this value to 0.

AnytimePermittedCommonTasksPerDatastore

- Type: REG_DWORD
- Default value: 1
- Description: Veeam starts to check datastore latency only when the amount o f active Veeam tasks on that datastore is equal or larger than this value.

AnytimePermittedSnapshotCommitsPerDatastore

- Type: REG_DWORD
- Default value: 1
- Description: Veeam starts to check datastore latency only when the amount o f active remove snapshot tasks on that datastore is equal or larger than this v alue.
- Notes: Caution, setting this value to 0 may lead to situations when the amoun t of active Veeam snapshots grows significantly.

PostProcessorMaxParallelThreads

- Type: REG_DWORD
- Default value: 4

- Description: The number of replicas to which retention is applied concurrently at the end of a Replication job. (Both VI and HV). Note that concurrent snapsh ot removal is also limited, by other registry values.

BackupChainsUpdateTimeoutSec

- Type: REG_DWORD
- Default value: 15 (seconds)
- Description: Introduced in 9.5 Update 4a. The key should be created on EM se rver in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup Reporting. A llows customizing the interval for syncing backup chains data from VBR database to EM database. Increasing it will lighten up the load on the SQL server holding VBR database.

ClientEnableUpdate

- Type: REG_DWORD
- Default value: 1 (enabled)
- Set to 0 to force the Console on the current server to **not** download changed files from a remote Veeam server. This can be useful if you want to simultane ously connect with Veeam Consoles to several Veeam installations with differ ent hotfixes installed.

AwsSnapshotCreationTimeoutMin

- Type: REG_DWORD
- Default value: 240
- Description: Defines duration for the snapshot duration task during the restor e to AWS. As the value isn't big enough it may be not sufficient for the large d isks hence you may need to calculate the proper value manually based on dis k size and performance for block allocation in Amazon.

ExtendedUILogging

- Type: REG_DWORD
- Default value: 0
- Description: Enables extended logging for UI caches.
- Added in: 10.0

RetentionJobStartTimeHours

- Type: REG_DWORD
- Value: 0-23
- Description: if you want to start your Retention Job at 21:00 (09:00 PM), you s hould specify value 21 at RetentionJobStartTimeHours.
- Added in: 12

RetentionJobStartTimeMins

- Type: REG_DWORD
- Value: 0-59
- Description: if you want to start your Retention Job at 00:45, you should speci fy value 45 at RetentionJobStartTimeMins..
- Added in: 12

RetentionDaysBackupsCountMin

- Type: REG_DWORD
- Default value: 3

- Description: Should be created on VBR Server. *Requires VBR Service Restart.* This is the minimum number of required days to keep on storage when using Daily Retention.
- Added in: 10.0
- Referenced on this UG Page: https://helpcenter.veeam.com/docs/backup/vsphere/retention_policy.html?ver=100

TlsIncompatibleHostIps

- Type: REG_SZ
- Default value: 0
- Description: Value should be set as IPs of hosts, separated by commas.(i.e. 19 2.168.0.1, 192.168.0.2).
- Notes: V12 only. Connections to the hosts listed in the value will be created wi thout TLS (as in version 11).

ConfigurationBackupSuppressEncryptionWarning

- Type: REG_DWORD
- Default Value: 0
- Description: Pretty much as the title says. If they do not have encryption ena bled, their configuration backup will warn "Skipping credentials backup becau se the encryption is disabled. This will complicate the restore process signific antly. Enable configuration backup encryption to stop receiving this warning." **Please be smarter than your customer and just convince them to ena ble encryption**. Only for the truly desperate and terrible offer the regvalue. Have a senior colleague advise how to avoid giving this regvalue.
- Added in: Looks to be v11 only.

VBRRescanExclusions

- Type: **REG_MULTI_SZ**
- Default Value: empty. We exclude RECYCLE and Trash by default, but you can add more.
- Description:

The key allows you to exclude from rescan process some folders.

Why? Different physical solutions could use different folders for a trash bin. So now it is possible to add such folders in the key and don't care in our code for any possibl e places where trash bins could be.

If something was excluded, there would be this line in rescan log:

" Log.Message($"Skipping [{itemInfo.Name}] folder at [{Repository.Name}] reposit ory due to the registry settings.");

- Added in: v12
-

Additional information:

  - A register is not taking into account (FolDeR = folder).

    - UNOFFICIALLY the key could support next prefixes: wildcard: folder* - w indows mask, regex: [Ff]old.+ - regular expressions.

Line should be written exactly like on file system.

- Example entry:

{{{.RECYCLE.BIN
.hidden
.trash
ignoreIt
wildcard: *recycle*
wildcard: trash*
regex: .*recycle.*
regex: trash.*}}}

Licensing

ExtendedLicensingLogging

- Type: REG_DWORD
- Default value: 0
- Description: Turns on extended logging in different parts of licensing (e.g. duri ng registration of instances, in license management).
- Note: See *Svc.VeeamBackup.Licensing.log* for more details. If LoggingLevel is set to 5 or 6, Licensing logging is automatically extended as well.

SkipLicensePush

- Type: REG_DWORD
- Default value: 0
- Description: prevents Enterprise manager from pushing the license to B&R se rver ([HKEY_LOCAL_MACHINE\SOFTWARE\VeeaM\Veeam Backup Reporting])

Scheduler

VolumesDiscover_Periodically_Hours

- Type: REG_DWORD
- Default value: 4 (hours)
- Change the period of automatic rescans of the infrastructure (aka "volume ho st discover").

Dedupe appliances

DDBoostLogLevel

- Type: REG_DWORD
- Default value: 0 (disabled)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport || HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup Trans port
- Description: Add it on DataDomain Gateway! enables extended ddboost librar ies logs

{{{ DDP_SEV_NONE = 0,
DDP_SEV_ERROR = 1,
DDP_SEV_WARN = 2,
DDP_SEV_INFO = 3,

DDP_SEV_DEBUG = 4,
?super_debug? = 5}}}

StoreOnceLogLevel

- Type: REG_DWORD (0-5, the smaller value is set the more detailed output is r etrieved)
- Default value: 5
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport (on gateway server)
- **Description: Don't apply just to get some more logs from client.** Enabl es extended catalyst library logs (separate CmdSession and DataSession logs in the same folders as agent logs). Note that multiple files will not be created - when a file reaches its maximum size, it will be overwritten starting from th e top. So in most scenarios you need to implement the key - test and disable the key right after. Key applies immediately. It might be good to use it with th e next key StoreOnceMaxLogfileSize, because 10 Mb is too small size for such logs.

{{{OSCLT_LOG_LEVEL_EXTENDED_DEBUG = 0, *Highest Level - don't put this without direct instruction from R&D* Highest Level - don't put this with out direct instruction from R&D.
OSCLT_LOG_LEVEL_DEBUG = 1, *You can try this one, but be careful, as it logs quite a lot too and you need to disable it right after test* You ca n try this one, but be careful, as it logs quite a lot too and you need to disable it righ t after test.
OSCLT_LOG_LEVEL_TRACE = 2, *Like Info (value 3), but lo gs extra trace points to help debug datapat* Like Info (value 3), but logs extra trace points to help debug datapath
OSCLT_LOG_LEVEL_INFO = 3, *Inf* Info
OSCLT_LOG_LEVEL_QUIET = 4, *Like Error (value 5), but al so logs performance statistics for client AP* Like Error (value 5), but also logs perform ance statistics for client API
OSCLT_LOG_LEVEL_ERROR = 5 *Lowest level}}* Lowest le vel}}}

StoreOnceMaxLogfileSize

- Type: REG_DWORD (size in bytes, maximum is 4 GiB)
- Default value: 10485760 (10 MiB)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport (on gateway server)
- Description: the size of catalyst library log file to rollback. 256 Mb - 26843545 6, 512 Mb - 536870912.

StoreOnceFileSessionOverhead

- Type: REG_DWORD
- Default value: 2
- Description: define amount of redundant slots: for example if a task has got 4 restore points and going to create a new one it needs to request 5 file session s (4 old + 1 new). However due to over-protection over StoreOnceFileSession Overhead value which is 2 by default the task will request 7.

StoreOnceResourceScanTtlSec

- Type: REG_DWORD
- Default value: 60 (sec)
- Description: define the amount of time after which the rescan info would be c onsidered outdated and we need to a fresh rescan in order to work with such repository (extent)

StoreOnceDisableSequentialRestore

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: DISCLAIMER please be sure why you use this registry value. The biggest impact would be that on Hyper-V we will create the same type of disk s as on the original VM (thick/thin). By default, when restoring from SO we will create them as thin ones. This is due to the issue when creating 4T+ sized empty thick disks on Hyper-V. **Enable with care.**

CatalystCopyDeletionGuardDays

- Type: REG_DWORD
- Default value: 21
- Description: specifies how many days of retention all the Catalyst Copy jobs will have. This setting affects all the jobs at once

UseLowBandwithMode

- Type: REG_DWORD
- Default value: 0 (disabled)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport
- Location: Gateway server
- Note: Bandwidth is misspelled, be careful not to spell it correctly.
- Description: For HPE StoreOnce. Normally Veeam will use the High Bandwidth mode unless both primary and secondary modes are set to 'low' on the applia nce. Setting this value to 1 will force Veeam to use Low Bandwidth mode regardless of appliance settings. Low Bandwidth mode is useful when the gateway server is across the WAN from the StoreOnce. Not needed in 9.5 because of new UI option.

DDBoostReopenWriteFileOnTouchEnabled

- Type: REG_DWORD
- Default value: 0 (disabled)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport
- Description: Enables additional keep-alive operations during NAS backup to D atadomain to avoid error 5057. More details in bug 305708 or 382424.

DDBoostReopenWriteFileOnTouchIntervalSec

- Type: REG_DWORD
- Default value: 3600 (seconds)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport
- Description: Defines the interval between keep-alive operations. More details in bug 305708 or 382424.

PluginsHostWorkerCount

- Type: REG_DWORD
- Default value: 4 in v11a, 16 in v12.
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Transport
- Description: The number of parallel operations that can be performed by VeeamPluginsHostX64.exe on StoreOnce. See related bug 436409. The key must be set on the StoreOnce gateway host. It is necessary to restart "Veeam Installer Service".

QuantumDisableSequentialRestore

- Type: REG_DWORD
- Default value: 1
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
- The key switch the restore operation mode between sequential / random reads for Quantum-like repositories. It has a default value of 1 when the key is not present which means that sequential read is disabled. It can take 0 or 1 as values.

For better performance, it should be set to 0.

With key =0 this works as follows:

To accelerate the restore process, Veeam Backup & Replication creates a map of data blocks in backup files. It uses the created map to read data blocks of VM disks from backup files sequentially, as they reside on disk. Veeam Backup & Replication writes data blocks to target in the order in which they come from the target Veeam Data Mover, restoring several VM disks in parallel.

Repository/Storage

RefsVirtualSyntheticDisabled

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0
- Description: By default, Veeam Backup & Replication uses Fast Clone for all backup repositories that meet the specified requirements. You can disable this option with this value. To be configured on Veeam Backup and Replication server itself.

DisableVBKRename

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: See KB1076. Useful if you want to copy the latest full using third-party products that need a consistent file name.

ForceCreateMissingVBK

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Enables support for rotated drives. With this functionality enabled, if any backup file from the latest full backup chain is missing (such as when the existing hard drive is replaced by another one), jobs will start the new backup

chain and create the new full backup (instead of failing out).
Set to 1 to enable support for rotated drives.

ForceDeleteBackupFiles

- Type: REG_DWORD
- Value: 3 (delete the entire contents of the backup job’s folder only)
- Value: 5 (delete the entire contents of the root backup repository folder)

ForceTransform

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: When set to 1, will trigger synthetic full on every job run.

StorageLockTimeout

- Type: REG_DWORD
- Default value: 300 (seconds)
- Description: defines a timeout that should release lock on the backup storage

Smb2RetryCount

- Type: REG_DWORD
- Default value: 15
- Description: defines amount of retries verifying storage existence on the targ et

SobrTransferMetaViaAgents

- Type: REG_DWORD
- Default value: 1
- Description: If set to 0 revert behavior to pre-v10 when Veeam used VBR servi ce and a transport on a SOBR extent to transfer meta. Please note it's not rec ommended way plus can reflect on extent's CPU usage.

SOBRFullCompressRate

- Type: REG_DWORD
- Default value: 50 (percent)
- Description: override the estimated space VM would take on SOBR in a full ba ckup. % of VM size (check Original Size in backup set properties). You might w ant to reduce this value in case of a "No scale-out repository extents have su fficient disk space to store the backup file" error. See Bug 125348 for hotfix to accommodate for ReFS+FastClone or Storeonce+Catalyst, and other exceptio ns. New name of this reg value in 9.5U4 is SOBRSyntheticFullCompressRate. Added in V.10: It controls only the initial full backup size estimation

SOBRSyntheticFullCompressRate

- Type: REG_DWORD
- Default value: 100 (percent)
- Description: override the estimated space VM would take on SOBR in a full ba ckup. % of previous full backup size. You might want to reduce this value in ca se of a "No scale-out repository extents have sufficient disk space to store the backup file" error. Only valid for 95u4 and later. Please keep in mind that the key won't work for BCJ out of the box and check 186346!
  In Veeam Cloud Connect scenario this key should be set on a tenant side.
  V.10: It controls Synthetic full and Synthetic GFS size estimation

SOBRIncrementCompressRate

- Type: REG_DWORD
- Default value: 10 (percent)
- Description: override the estimated space VM would take on SOBR in an incre mental backup. % of VM used size.
  V.10: it controls the initial increment/rollback size estimation. % of previous V BK size

SOBRFullSizeEstimatePercent

- Type: REG_DWORD
- Default value: 100 (percent)
- Description: V.10: it controls Active full, BCJ Active full, BCJ GFS Active full size estimation. % of previous VBK size

SOBRIncrementSizeEstimatePercent

- Type: REG_DWORD
- Default value: 100 (percent)
- Description: V.10: it controls second and forth increment/rollback size estimati on. % of previous VIB/VRB size.

SOBRTransformRate

- Type: REG_DWORD
- Default value: 10 (percent)
- Description: override the estimated space rollback or merge task will take on SOBR. % of VM used size in case of rollback, % of existing .vbk size in case of merge and transform to rollback.

SOBREvacuateRate

- Type: REG_DWORD

- Default value: 100 (percent)
- Description: Control the space estimate of the source data set during SOBR E vacuation. For example, setting the key value to 50 will cause Veeam to estim ate 50% of the storage size in source. This new estimate value will then be us ed in the size check before evacuation kicks in. This can help in cases where you wish to evacuate towards a dedup-friendly extent, however you must ma ke sure that all data will fit in the destination.

SobrReserveExtentSpacePercent

- Type: REG_DWORD
- Default value: 1 (percent)
- Description: defines the amount of free space reserved on the extents of SOB R, e.g. for merge (% of total extent size).

SobrForceExtentSpaceUpdate

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: enables advanced SOBR extents free space update logic. With thi s set to 1 (enabled) service updates cached extent free space every time task is assigned. 9.5 U2 or above

SOBRShowAllProxyInstanceTypes

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Allows us to switch back to the classic view of instance type for t he archiving job with all options available except too weak and too powerful, not just 3 user-friendly options

SshFingerprintCheck

- Type: REG_DWORD
- Default value: 1 (true)
- Description: Disable by setting to 0 (false) to work around "Failed to check fin gerprint" errors for SSH communication. Usually only needed for clusters of Li nux servers or HP storage integration. Added in v9 update 1.
  Note: it will not suppress the UI warning in managed host Wizard, only the ap plies to jobs and re-scans.

UseUnbufferedAccess

- Type: REG_DWORD
- Default value: 0 (false) pre v11, 1 (true) after v11

- Description: Enable to force unbuffered access analogous to diskspd -h that w ill disallow Windows caching and may improve write performance to CIFS. 9.0 Update 1 required. Does NOT work with REFS shares!
- Note: Apply with caution! May cause errors described in bug 224579.
- Important note: According to thread "RE: [RND][VBR][10GA][04248730][Buhl Data Service GmbH] Flush to repository is somehow 5 times longer in case if VM is processed by multiple proxies instead of one" unbuffered access in v.10 can cause corruption during restores. It should no be used until v.11 is out. Ev en withh v11, please use this key judiciously. It should be faster in basically e very situation to use UnbufferedAccess, and if it's not, we need to know why **The key is no longer used from V12 and is replaced by DataMoverLeg acyIOMode key**

DataMoverLegacyIOMode

- Type: REG_DWORD
- Default value: 0 (false)
- Description: The key controls how VeeamAgent works with storages. By defau lt the storage files are opened in unbuffered asynchronous mode. If the key is set to 1, then they are opened in buffered synchronous mode. Note that this o ption will degrade the backup speed. (The key replaces UseUnbufferedAccess, DisableHtAsyncIo, StgAsyncRead keys (these keys are ignored from V12)). Se e: https://xwiki.support2.veeam.local/bin/view/Main/Internal%20Technical%20Docs/Veeam%20Backup%20and%20Replication/Veeam-Backup-Replication-New-Features/VBR-v12-features-list/Minor-changes-VBR-v12/

UIShowLegacyBlockSize

- Type: REG_DWORD
- Default value: 0 (False)
- Description: Available since 11a. Put 1 to show in UI "Extra large blocksize" - 8 Mb. Also noted in Release notes for 11a: https://www.veeam.com/kb4215

ResourceScanDefaultTTLRepositorySec

- Type: REG_DWORD
- Default value: 900 (seconds)
- Description: Default timeout during which information about extent in DB (av ailability and free space) is considered to be actual

DoNotCreateHeartbeatFile

- Type: REG_DWORD
- Default value: 0 (false)
- Description: When set to 1 disables creating heartbeat.bin file on SOBR exten ts.

ObjectStorageTlsRevocationCheck

- Type: REG_DWORD
- Default value: 1
- Description: **v12 -** This parameter enables the certificate revocation check, w hich is performed every time connecting to the object storage.
- Location (Windows): Set on the gateway/repository used for object storage.

    - 0 - Disabled, revocation check is disabled completely.
    - 1 - Enabled.
- Location (Linux): Edit **/etc/VeeamAgentConfig** to set the option on Linux sy stems.

ObjectStorageCRLCheckMode

- Type: REG_DWORD
- Default value: 1
- Description: this key controls SSL certificate checks with jobs going to/from ca pacity tier; has four different modes :
    - 0 - all issues with capacity tier certificates will abort the job
    - 1 - default; OfflineRevocation status is ignored, all other errors = failure
    - 2 - ignore OfflineRevocation and WarningRevocationStatusUnknown err ors
    - 3 - ignore all above + PartialChain error.

UseCachedSshConnections

- Type: REG_DWORD
- Default value: 1. 0 in all other cases.
- Description: Enables SSH connection cache. *Does not require restarting the s ervice. NOTE: Running cloud installations without SSH caching could result in unexpected and uncontrolled failures, excessive CPU and RAM usage. Moreov er, there are a lot of bugs in SSH (both Renci and Granados) which are solved by the caching mechanism and all tests in our R&D labs are performed with U seCachedSshConnections = 1. Therefore, disabling cache by setting the regis try key UseCachedSshConnections = 0 in case of Cloud installations is prohibi ted or should be approved by Senior or T3 engineer.

SkipLinuxAgentRemoval

- Type: REG_DWORD
- Default value: 1 (for Cloud Connect infrastructures starting from 9.5u4). 0 in a ll other cases.
- Description: Allows backup server to re-use existing Linux datamover, instead of re-deploying it each time. *Does not require restarting the service.

Nfs4LibLogLevel

- Type: REG_DWORD
- Default value: 2
- Description: Log level on Windows for NFS 4.1 repository. **0** (Debug) is the most detailed. **1** (Trace) is better if you're troubleshooting. We're using this library: GitHub - kofemann/ms-nfs41-client: NFSv4.1/pNFS client for Windows 7 developed by CITI, UMICH. In order for the registry parameter to take effect, restart Veeam Installer Service on the host where it is set.
- Added in v10

NfsLinuxMountOptions

- Type: REG_MULTI_SZ
- Default values (both are overwritten with this registry value):
    - rw,soft,retrans=1,timeo=1 when the NFS connection is tested
    - rw,soft,timeo=600,retrans=5,intr when backing up
- Description: Set custom parameters for NFS shares accessed VIA LINUX GATE WAYS. **v10+**

- Example: 172.24.30.34:/data;rw,soft,vers=3

NfsShareVersions

- Type: REG_MULTI_SZ
- Default value: autodetected.
- Description: Forcibly set the NFS version for shares accessed VIA WINDOWS G ATEWAYS. Supported options are "**3**" and "**4.1**". Additionally, you must click t hrough the wizard for this to take effect. **v10+.**
- Example: 172.24.30.34:/data;3

SshFileLoaderTimeoutSec

- Type: REG_DWORD
- Default value: 300 (seconds)
- Description: timeout for opening of vbm file via SSH.
- Added in v10

SobrIsFileCommanderCachingForced

- Type: REG_DWORD
- Default value: 0
- Description: Set to 1 to enable FileCommander Caching, might be useful if SQ L log or Agent Managed backup jobs keep plenty of connections to ports 6160 on target SOBR extents consuming many dynamic ports on a VBR server
- Applicable only to Veeam Backup and Replication v.9.5 update 4 and newer. I n v10 this caching is enabled by default

SkipServerPermanentCredentialsExistenceValidation

- Type: REG_DWORD
- Default Value: 0
- Version: v11 and on
- Description: By default, you cannot use Linux hosts which serve as Hardened Repsoitories as Helper Hosts for OtherOS restores. The Restore Agent must ru n with elevated privileges, and this means that it violates the security model of the Hardened Repository (root can remove the immutable attribute always) . **Never use this registry value except for absolutely dire emergencie s**. We always have the option to fall-back to using the temporary Helper Appli ance (Step 1) and deploy that. Yes, this key is a big threat (theoretically), so d on't give it out randomly or at all, just use common sense please. **Unless yo u're SWAT and in an absolutely ridiculously messed up situation, you don't need this reg value and neither does your customer.**

Logging

LogDirectory

- Type: String
- Default value:
- Description: path to the log folder

AgentLogging

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: enable agent logging

LoggingLevel

- Type: REG_DWORD
- Default value: 4 (normal)

- Description: specify logging level (0 - disabled to 6 - debug). Most of logging hidden behind this parameter is database-related, so it only really makes sense to adjust this if you want to figure out what stored procedures hide behind some of the business logic operations. Setting it to 5 is usually enough. Logs can become much harder to read, so you should have some idea of what you are looking for to make sense of them. Log level 6 forces Veeam to log even more SQL interactions with the DB, a few debug traces here and there, some UI-related stuff. Enabling it on large Veeam infrastructures could lead to overloading storage where the logs are written, so be careful with it. Rule of thumb is - you sometimes need LL5 for DB related issues and you barely ever need LL6.
- Add an entry under "*HKEY_CURRENT_USER*\Software\Veeam\Veeam Backup and Replication" if you want to increase the logging level of the Veeam Console.
  NB: Increasing this value will not help you when you are troubleshooting Storage Integration issues. Instead, use the keys mentioned in SAN Integration paragraph. For more details, please refer to [Basic Storage Integration Troubleshooting/]

ExportLogArchiveMode

- Type: REG_DWORD
- Default value: 0
- Description: Used to control single/multithreaded compression during Support Log export
  - Value = 0 (Single Core)
  - Value = 1 (Optimal - Minimum CPU\2 up to a maximum of 6)
  - Value = 2 (Half Cores - CPU\2)
  - Value = 3 (IonicZip - Legacy compression logic in v12 or older)
- **Available in v12.1 at release.**
- **Available in v12 CP3 by hotfix only [https://xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/Bug-582637]**

VDDKLogLevel

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: enable VDDK output in the agent logs. Disabling this is sometimes useful to remove delays from the job, especially in Direct SAN mode.

CollectBackupStat

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during backup or replication sessions. Should be set on each server (Proxy, Repository) you want to generate agent PerfData.

CollectRestoreStat

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (enabled)

- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during restore sessions

CollectSocketEvents

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (enabled)
- Description: force agent includes event related to operation to socket in the dump file (C:\ProgramData\Veeam\Backup\PerfData\Agetn.<PID>.<Time>.bin)

CollectTapeStat

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (enabled)
- Description: force agent creates a dump file (C:\ProgramData\Veeam\Backup\PerfData\Agent.<PID>.<Time>.bin) with guest resources counters and agent's internal values during tape job sessions

LogVssKeepSnapshotEvents

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)

MaxLogCount

- Type: REG_DWORD
- Default value: 10
- Description: defines the number of rollback files (works only for Veeam server logs, for SQL log backup jobs is controlled by different reg value)

MaxLogSize

- Type: REG_DWORD
- Default value: 10*1024 (kilobytes)
- Description: defines the maximum size of the log file (works only for Veeam server Job logs and Task logs, for SQL log backup jobs is controlled by different reg value. Agent logs (including Capacity Tier Gate logs) are controlled by AgentMaxLogSize). g

SQLJobMaxLogCount

- Type: REG_DWORD
- Default value: 1
- Description: defines the number of rollback files for SQL log backup jobs files

SQLJobMaxLogSize

- Type: REG_DWORD
- Default value: 10*1024 (kilobytes)
- Description: defines the maximum size of the log files for SQL log backup jobs files. Expecet some degree of variance, the logging system cannot hard-stop at a specific value so you may see some additional size from the written value

UncompressedLogsMaxTotalSize

- Type: DWORD
- Default value: 512000 (kilobytes)
- Description: Total size of uncompressed logs, applies per job (works only for Veeam server logs)

LogsArchiveLifetimeInDays

- Type: DWORD

- Default value: E (14 decimal)
- Description: defines the log files age after which it will be archived (works onl y for Veeam server logs). Example: if MaxLogSize is reached, the log file will b e split. Once the age is reached, all job files will be archived including agent l ogs if they are located on the backup server.

LogsArchivesMaxCount

- Type: DWORD
- Default value: 10
- Description: Total amount of archived generations of logs. Example: Svc.Veea mBackup.1.gz Svc.VeeamBackup.2.gz (works only for Veeam server logs)

RTSDetailedLogging

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Value = 1 (advanced logging)
- Value = 2 (extreme logging)
- **Please use wisely and remove after log collection, it adds too much e xtra data into the logs.**
- run in cmd as admin to show current proxy usage: "C:\Program Files\Veeam\ Backup and Replication\Backup\Veeam.Backup.Manager.exe" - ShowProxyUsages

AsynchronousLogging

- Type: REG_DWORD
- Default value: 0
- Description: Enables asynchronous logging in 9.5 update 3. Recommended va lue 1.

AgentMaxLogSize

- Type: REG_DWORD
- Default value: 20 * 1024* 1024 (decimal, in Bytes)
- Description: defines maximum size of an AGENT log file (so it should be applied if you want to decrease or increase log size on your proxy) Expect some degree of variance, the logging system cannot hard-stop at a specific value so you may see some additional size from the written value.

Should be added here:
HKLM\SOFTWARE\Veeam\Veeam Backup and Replication
On the proxy in question.
Apply to the following location on the CDP proxy to affect CDP logging:
HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam CDP Proxy Service

AgentMaxLogCount

- Type: REG_DWORD
- Default value: 50 (decimal)
- Description: defines amount of the AGENT rollback files (so it should be applie d if you want to decrease log number on your proxy)

Should be added here:
HKLM\SOFTWARE\Veeam\Veeam Backup and Replication
On the proxy in question.
Apply to the following location on the CDP proxy to affect CDP logging:
HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam CDP Proxy Service

KerberosExtendedLogging

- Type: REG_DWORD
- Default value: 0
- Description: Controls extended logging of SPNs used during connection, inval uable for Kerberos authentication troubleshooting. Set to 1 to enable Kerbero s logging
- added in v12

Instant Recovery

IRReadCacheBlockSize

- Type: DWORD
- Default value: 524288 (256 KB if backup file block size is 256 KB, and 512 KB if it's larger)
- Description: Specifies the block size used when reading data from the storage array during IR. Must be created on Mount Server.

File copy job

RpcRetryConnect

- Type: DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Specifies if RPC operation should retry

RpcUniqueBindingDisable

- Type: DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: By default unique RPC binding is set in order to comply with MS u pdate 3067505. Set this key to 1 in case of fiel copy job RPC errors. Specified windows update should be uninstalled as well

RpcRetryDelayMs

- Type: DWORD
- Default value: 10000 (in milliseconds = 10 seconds)
- Description: Timeout before RPC operation retry

Tapes

EnableScsiChanger

- Key: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Tape
- Type: REG_DWORD

- Default value: 0 (Disabled)
- Description: Used on tape server. Enable it for old devices or devices that do not have vendor drivers available for Windows; mostly does the same thing a s the checkbox in the library settings. Even if the checkbox is checked, dumpi nformation.xml might be incomplete without this registry value.

TapeRetrySleepInMs

- Type: REG_DWORD
- Default value: 1000
- Description: interval between retries upon encountering "device busy, device disconnected, ". Has to be added to both HKLM\SOFTWARE\Wow6432Node\ Veeam\Veeam Backup and Replication and HKLM\SOFTWARE\Veeam\Veeam B ackup and Replication

TapeBlockSize

- Type: REG_DWORD
- Default value: Drive default, usually 65536
- Description: **Value should be power of 2!** Sets a blocksize for "setTapeMedi aBlockSizeToDrive" agent command, only supports blocksizes that are suppor ted by device AND media (see devmgmt). In v9, block size can be set in the G UI for each drive, instead of set globally in the registry.

TapeTransferBlockSize

- Type: REG_DWORD
- Default value: 2097152 (2 MB)
- Description: **Value should be power of 2!** Key defines the blocksize in byte s for the Veeam Agent to read the data in tape jobs. Should be set on both sid es where Veeam Agent is started, source and target ones

TapeCheckBlockHeaderCrc

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: Check tape blocks for data corruption

SkipTapeAlerts

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: force Veeam skipping alerts coming from tape drive

TapeAgentScriptTimeoutSec

- Type: REG_DWORD

- Default value: 30 * 60 (sec)
- Description: Influences the duration of the 'executeTapeScript' command's ex ecution . In case the agent does not respond within this time out's value (30 mins default), then we get : throw new Exception("Script execution timed out "). Increase the value of the time out as needed.

TapeDeviceNotReadyTimeoutSec

- Type: REG_DWORD
- Default value: 60 (sec)
- Description: in v9 the key should be created on the server where the Tape Ser vice runs in HKLM\SOFTWARE\Wow6432Node\Veeam\Veeam Backup Tape. In v 8 SOFTWARE\Veeam\Veeam Backup and Replication\.

BarcodeScannerInstalled

- Type: REG_DWORD (0 False, 1 True)
- Default value: - (undefined)
- Description: define if Barcode scanner is installed in the library or not. **Try no t to use this registry key at all. If customer insists on this key usage make sure he understands the consequences.**

TapeIgnoreSoftwareEom

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Disables our own end of media tracking. Please make sure the de vice supports hardware EOM - otherwise, this key should not be used ever in your whole life. Yes, it is that dangerous.

TapeSoftwareEOMInMb

- Type: REG_DWORD
- Default value: 5*1024 (5 GB)
- Description: Does what you think it does. If you set it to more than 10% of the tape capacity, EOM detection will happen every 10% of total space / 2MB

TapeDetectSoftwareEOMEveryMb

- Type: REG_DWORD
- Default value: 2*1024 (2GB)
- Description: How often we check whether software EOM is due

TapeMinFileSizeWithCompressionAndMultistreaming

- Type: REG_DWORD
- Default value: 128 (this value is in MB)

- Description: defines min file size, for which traffic compression and multistrea ming should be used. **Should be set on the source server (repo) in HKE Y_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication** \Should be set on the source server (repo) in HKEY_LOCAL_MACHINE\ SOFTWARE\Veeam\Veeam Backup and Replication\.
  For Linux source servers it will be always 128MB. **If reg key is used, you wi ll see following in agent logs: < 4644> TAPE MINIMUM FILE SIZE WIT H COMPRESSION AND MULTISTREAMING IN MB: 6553** If reg key is used, you will see following in agent logs: < 4644> TAPE MINIMUM FILE SIZE WITH COMPRESSION AND MULTISTREAMING IN MB: 65536

TapeDevices

- Type: REG_MULTI_SZ
- Links: KB Article or xwiki article

TapeGFSBackupWaitTimeout

- Type: REG_DWORD
- Default value: 1440 (1440 min = 1 day)
- Description: Added in v9u2. Specify a value in minutes that GFS jobs should w ait for new restore points. By default GFS job starts at 00:00 and waits for the new restore points for up to 24h before failing over to taking the previous rest ore point.

TapeWaitForActiveStorageTimeoutInHours

- Type: REG_DWORD
- Default value:
- Description: Specify a value in hours that GFS jobs should wait for the active r estore point (locked by the source job). By default GFS job waits for up to 7 d ays till the lock is released. If the value is 0, GFS job will immediately switch t o the previous storage.

TapeIgnoreReturnMediaToOriginalSlot

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: See KB1943

DisableEjectWarning

- Type: REG_DWORD
- Default value: 0 (disabled - Warnings show up)
- Description: Enable or disable the "Failed to eject some tapes" warning (bug 9 0894). Works starting from v9.5U1

TapeMaxSlotsToRequest

- Type: REG_DWORD
- Default value: 75
- Description: Modifies the amount of slots per single rescan request. Default v alue might cause duplicate barcodes appear in DB after each rescan

TapeGfsExpiredMediumSharing

- Type: REG_DWORD
- Default value: 0
- Description: when set to 1 expired tapes in GFS MediaPool are allowed to mov e between GFS MediaSets automatically and ignore media_set_type. Impleme nted in U4

TapeGFSMissedBackupNotification

- Type: REG_DWORD
- Default value: n/a
- Description: allows to show following messages as Info (Green) or Warning (Ye llow)

- Synthesized full backup was not created for [date]: there are no new restore points between [date] and [date]

- [TBD] SynDate [date] Analyzing. No backup files found for required date or in previ ous interval ([date],[date]). Most likely, virtual full backup has already been archived to tape.

- No days found between previous date and current date. No backup files can be ad ded as candidates for [date]
-

Values:

Key not set in the registry (default): all the messages mentioned above would be sh own as Info (Green) only for daily-mediaset and for all of the mediasets in Tenant to tape job.

Key set to 0: all the messages are going to be Info (Green).

Key set to any value > 0: all the message would be Warnings (Yellow).

NdmpBackupSocketTimeoutInMin

- Type: REG_**QWORD** (**ATTENTION! QWORD**, not DWORD!)
- Default value: 10

- Description: Sets NDMP socket timeout. Key should be applied on both sides where VeeamAgent is started, Tape Server and NDMP Gateway server. In the l ogs value can be confirmed with the line "Start receiving NDMP data. Ndmp s ocket timeout is * sec"

TapeForceHwEncryption

- Location: TAPE SERVER
- Type: REG_DWORD
- Default value: 0
- Description: Set the key to 1 if your customer wants to restore from the encry pted tape backups written in Update 3a and earlier and receives "Tape drive d oesn't support hardware encryption".
- **NOTE: to be used only for restore purposes. Should be removed by t echnical support engineers immediately once restore is done.**

TapeRebuildOnlyRetriedTasks

- Location: VBR
- Type: REG_DWORD
- Default value: 1
- Description: in version 10, we changed the logic of retrying tasks in tape jobs during rebuild. In v10, if rebuild is initiated, we set only those tasks to retry w hich are **not successful (default behavior)**, when in v9.5 and earlier we re tried all tasks. If you want to revert the old logic (retry ALL tasks), please set t his key to 0.

TapeDisableCartridgeMemoryUsage

- Location: VBR
- Type: REG_DWORD
- Default value: 0
- Description: the key disables writing to the tape chip. Could be set to 1 if writi ng to tape medium chip fails with 1117 error; see https:// xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found %20Bugs/VBR/Bug-188601 for more detail.
- **NOTE: before applying, make sure first that the customer is not goin g to use WORM tapes, since WORM tapes functionality will be broken (WORM usage requires writing to chip).**

TapeMediumSortByUsageStatistics

- Location: VBR
- Type: REG_DWORD
- Default value: 1

- Description: the key is made to revert the old tape selection logic (by barcode s). The default value is 1 (sort by usage, effective since 9.5 U4); to switch to t ape selection set this key to 0.

TapeDetectZeroBitChanger

- Location: TAPE SERVER
- Type: REG_DWORD
- Default value: 0
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Tape
- Description: the key made specifically for the IBM changers 3584 (TS3500/ TS4500). Due to some changer peculiarities (bug 207155), we don't receive s uch changers drives serial numbers and therefore don't display the library / it s drives in VBR console. Set the key to 1 if you're facing this situation (works **ONLY in v10**, for v9.5 you'll need to obtain the fix).

WaitForSequenceReaderCreationSec

- Location: VBR
- Type: REG_DWORD
- Default value: 3600 per job or "№ of disks * 5 minutes for each disk" (if №>12)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n
- Rare registry key, might help if you try to restore sich VM from tape which has many disks and restore fails with "Failed to wait for sequential reader creation "

TapeBackupLocksResolution

- Location: VBR
- Type: REG_DWORD
- Default value: 1
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n
- Introduced in: v12 CP2
- Set to 0 to revert the backup locks behaviour to how it worked in v11a. This w ill help with tape jobs failing with the "Stopped by job <source_BJ_name> (Ba ckup)" error.

MaxFilePathForTapeBackup ====

- Location: Tape Server
- Type: REG_DWORD
- Default value: 3000

- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n
- Set to larger value (6000, for example) to support long file paths for tape jobs if they fail with "File path #### is too long. The maximum length is 3000".

TapeEnableTrace

- Location: Tape server
- Type: REG_DWORD
- Default value: 0
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n
- This option enables/disables external (each tape-operation) logging.

ScsiLogEachCommand

- Location: Tape server
- Type: REG_DWORD
- Default value: 0
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n
- Set 1 to log all scsi commands in Svc.VeeamTape.log file. Needs to restart the service. Please do not use without RnD\QA request.

VSS

IndexerMaxNestedFolders

- Type: REG_DWORD
- Default value: 0 (no depth limit)
- Description: Sets maximum depth for created index. Files and folders with hig her depth will not be indexed. Should be created on guest in HKLM\Software\ Veeam\Veeam Backup and Replication
- Available values: N (number of folders in the file\folder path+1), usually 30 is sufficient.

VeeamGuestIndexerPriority

- Type: REG_SZ
- Default value: BACKGROUND
- Description: Sets process priority for indexing process. Should be set on guest in HKLM\Software\Veeam\Veeam Backup And Replication
- Available values: BACKGROUND, ABOVE_NORMAL, BELOW_NORMAL, HIGH, ID LE, NORMAL, REALTIME

DisableBackupComponentsXmlCollectionForJobs

- Type: REG_MULTI_SZ

- Default value: none
- Description: Disables collection of BackupComponents.xml for specified jobs

MaxGuestScriptTimeoutSec

- Type: REG_DWORD
- Default value: 600
- Description: Timeout for pre-freeze and post-thaw scripts, in seconds.

MicrosoftWindowsRPCServiceTestConnectionTimeoutSec

- Type: REG_DWORD
- Default value: 3 (sec.)
- Description: In v11a, an additional check was implemented to validate admin $ share availability via SMB. Apart from uploading some temp files to admin$ share, now we also check whether TCP port 135 is open. In some setups, the default timeout may appear not to be enough to pass this additional check (s ee case # 05056696).
- Notes: If you face the same issue and tried this key, even if it helped, please notify Nadezhda.Ponamareva@veeam.com. We need to count the number of affected customers, to possibly adjust the default value in future releases.

vixOperationTimeoutSec

- Type: REG_DWORD
- Default value: 15 * 60
- Description: clear from the name

vixExecutionTimeoutSec

- Type: REG_DWORD
- Default value: 60 * 60
- Description: clear from the name

InverseVssProtocolOrder

- Type: REG_DWORD (0 False, 1 True)
- Value = 1 (enabled - VIX first)
- Default value = 0 (disabled - \\admin$ first)
- Description:
    - Place registry value in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\ Veeam Backup and Replication
      (no services need to be restarted)
    - for GIP key needs to be created in HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\Veeam\Veeam Backup and Replication
      (no services need to be restarted)

    - for VBR key needs to be created in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication
      (no services need to be restarted)
    - **VBR 11+**
      InverseVssProtocolOrder **only** needs to be placed on the Veeam Backup Server. Also, starting with v11, it now affects Linux guest processing.
    - **VBR 9 - 10a**
      The key is read by both VBR (manager) and GIP (vss proxy svc)

HvVssPowerShellDirectPriorityOverNetwork

- Type: REG_DWORD
- Value = 1 (enabled - PowerShell Direct first)
- Default value = 0 (disabled - \\admin$ first)
- Description: Must be applied to the default hive on the Veeam server--not the guest interaction proxy.

VssPreparationTimeout

- Type: REG_DWORD
- Default value: 15 * 60 * 1000 = 900000 (15 minutes in milliseconds)
- Description: Timeout appears as error message “VSSControl: Failed to prepare guest for freeze, wait timeout 900 sec."
- Notes: This is not useful if the error is something else, like "VSSControl: Failed to freeze guest, wait timeout." See also KB1377

VssOtherGuest

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Veeam detects what OS the VM is listed as in the hypervisor (for VMware you can see this in the VMX file). If the VM is set to "Other" (32 or 64 bit), normally we won't try Windows VSS or Linux indexing. Set this to 1 to try both.

VssDisableNewMessagingLogic

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Affects job behavior in case of VSS processing failures, depending on guest processing settings. By default a job fails if the "Require successful processing" option is selected and logs a warning if "Try application processing, but ignore failures" is selected. With VssDisableNewMessagingLogic set to 1, the job will instead log a warning for "Require successful processing" and an info message if "Try application processing, but ignore failures" is selected.

HyperVVssRestoreTimeout

- Type: REG_DWORD
- Default value: 15 * 60 * 1000 (sec)
- Description: check case 04926279 or some other in SF search

SwitchToPersistentVssSnapshot

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Mostly useless debug option. By default, Veeam will switch to usi ng persistent snapshots if non-persistent snapshots are supported, and non-persistent snapshot creation has failed.

NLBClusterPrimaryIps

- Type: REG_MULTI_SZ
- Description: Define an cluster IP addresses (NLB, DAG and so on) to move the m down it the list of RPC connections. If you type "all" Veeam will start conne cts from the second IP address in the current list.

SqlExecTimeout

- Type: REG_DWORD
- Default value: 300 (in seconds), it was 60 before 9.0 U1 release.
- Description: Guest SQL execution script timeout, including the log truncation. Needs to be placed on the guest VM in:
  - HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicati on\
  - HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\VeeaM\Veeam Back up and Replication

VSSGuestSnapshotTimeout

- Type: REG_DWORD
- Default value: 1200 (in seconds)
- Description: Found in job log as "VSSControl: KeepSnapshot started, ttl 1200 s ec". Registry setting was added in v9 update 1. Prior to that, this timeout was hard-coded to 600 seconds. This registry key goes to the Veeam Server. The v alue may be increased if "Snapshot timeout occurred" is seen in VeeamGuest Helper.log

UseVSphereAPIVersion

- Type: REG_SZ
- Default value: 6.5
- Description: Utilizes VMware web services to accomplish guest processing, m ake sure the vCenter server is version 5 or above.

- Note: starting from vSphere 6.5 web services are used by default, set 7.0 to use VIX

UseSqlNativeClientProvider

- Type REG_DWORD
- Default value: 0 (disabled)
- Description: Uses native SQL provider to connect to the instance in guest VM instead of oledb. If the .udl file test fails to connect to the instance using the oledb provider and works with the native provider - then please enable this key. Needs to be placed on the guest VM in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication

HttpCommonTimeout

- Type REG_DWORD
- Default value: 60
- Description: The key allows setting HTTP timeouts for send/receive operations for vSphere API (WebServices) operations. Need to be set up on VBR server. See also 163886

LinuxIndexingUpdateDbTimeoutSec

- Type REG_DWORD
- Default value: 3600
- Description: May be used to increase the default timeout for updatedb command, in case one hour is not enough

LinuxIndexingPerCommandTimeoutSec

- Type REG_DWORD
- Default value: 600
- Description: May be used to increase the default timeout for other (not updatedb) commands related to Linux indexing

SQL Log Backup

VeeamLogShipperPriority

- Type: REG_SZ
- Default value: BACKGROUND
- Description: Sets process priority for SQL log shipping service and it's child processes. Should be set on guest in HKLM\Software\Veeam\Veeam Backup And Replication
- Available values: BACKGROUND, ABOVE_NORMAL, BELOW_NORMAL, HIGH, IDLE, NORMAL, REALTIME

SqlTempLogPath

Should be set in 'HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backup and Replication' in version 8,
in all later releases it is HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication. KEY IS ALWAYS SET ON THE GUEST.

- Type: REG_SZ
- Default value: **<Drive with most free space>:\Veeam\Backup\SqlLogBackup.** In previous versions (unclear which but likely anything pre9.5U4), it was. %allusersprofile%\Veeam\Backup
- Description: Used to specify alternative location for SQL logs backup task temp folder on guest VM. Also described in the article.

TempPathDir

Started from version 9.5 u4 you can change the location where SQL logs are temporarily stored on a log shipping server. Should be set on a log shipping server itself in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication, **do not forget a trailing backslash**.

- Type: REG_SZ
- Default value: C:\Windows\Temp\
- Description: Used to specify alternative location for SQL logs backup task temp folder on a log shipping server. Also described in the article. **The key should be valid for Oracle log backup as well**

SqlBackupInstanceDatabaseDelimiter

- Type: REG_SZ
- Default value: ":"

SqlBackupInstanceDatabasePairsDelimiter

- Type: REG_SZ
- Default value: ";"

SqlBackupDatabasesToSkip

- Type: REG_SZ
- Default value: None
- Description: To exclude SQL databases from SQL logs backup list databases and instances like in example: "sqlserver:msdb;sqlserver:model;:master;sqlserver:". Could be used in following way: sql_intance_name:db_name - skip everything with contains such instance and db name; sql_instance_name: - skip all databases from such instance; :db_name - skip all databases with such name on all instances.

- Mentioned in https://www.veeam.com/kb2104

ExcludeSQLInstances

- Type: REG_MULTI_SZ
- Default value: None
- Description: To exclude SQL instances from SQL logs backup or truncation. Pu t every single value on a new string with no punctuation. This is a guest value !

SqlBackupLogsAgeDaysToSkipTruncate

- Type: REG_DWORD
- Default value: 7
- Description: Log truncate will be skipped for a VM if there are SQL logs of this VM collected last X day by another existed job (!!The same key can be used i n oracle jobs).

SqlBackupLogsAgeDaysToSkipLogBackup

- Type: REG_DWORD
- Default value: 7
- Description: Log backup will be skipped for a VM if there are SQL logs of this VM collected last X day by another existed job (!!The same key can be used in oracle jobs).
- **Does not apply to PGSQL redo log backup. The logsAgeDays= value in the PostgreSQL_Log_Backup log does not change.*

SqlBackupMaxParallelThreads

- Type: REG_DWORD
- Default value: 4
- Description: Amount of SQL log backup tasks (one per DB) being run simultan eously. Can be increased to 10 (hardcoded limit).

SqlBackupForceTransportMode

- Type: REG_DWORD
- Default value: 0
- Description: Transport mode for SQL log backup transfer. 1 - direct transfer wi thout shipping server, 2 - network transfer via shipping server, 3 - VIX transfe r via shipping server.

SqlBackupProxySlots

- Type: REG_DWORD
- Default value: 4

- Description: Defines how many log backups a log shipping proxy will process at a time.

RpcSqlLogDownloadViaWebServiceTimeoutSec

- Type: REG_DWORD
- Default value: 10800
- Description: (Requires 9.5u2+) Defines the specific RPC timeout for operation s to download SQL log files from the guest, 3 hours by default (unlike **RpcReq uestTimeoutSec** which affects all the other RPC operations). **Must be set o n the VBR server only**

DisableSqlLogBackupErrorReports

- Type: DWORD
- Value: 1 (enabled - if you want to disable error notifications) or 0 (default)
- Description: This key disables Log Backup error notification.

NAS

NasEnableSymLinkSupport

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether NAS backup job should follow the symlinks or not. Please note! symlinks of DFS type are read properly by default. WARNING! Cr eate this registry value on the cache repository where master agent starts (c heck the logs to be sure). **WARNING!!!** In v11 this will be renamed to **NasInc ludeSymbolicLinkContent**

NasRestoreBrowserMaxListCount

- Type: REG_DWORD
- Default value: 1000
- Description: this value defines the maximum number of items we will show d uring the nas restore in the backup browser

NasRestoreWizardMaxTreeCount

- Type: REG_DWORD
- Default value: 1000
- Description: this value defines the maximum number of items we will show in the nas restore wizard

ObjStgLibLogDetails

- Type: REG_DWORD

- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

ObjAgentLibLogDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

NasBackupLibLogDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: add with value =1 on the File proxy server for additional logging for NAS backup

NasFilerIncludeHiddenShares

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: by defailt starting with v11a, we will skip such shares from the in sides of NAS Filer like NetApp — $share or share$. If you want to see them in UI and back them up, enable this.

NASIncludeSystemShares

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: add 1 to enable. By default starting from v11 we skip System sha res from processing when job selects root folder.

NASIncludeHiddenShares

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Add 1 to enable. By default starting from v11 we skip hidden sha res from processing when job selects root folder.

NASFailoverToDirectBackup

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: this value forces NAS backup to backup from filer directly (i.e. wit h secondary SnapMirror that doesn't allow to create ss)

NasBackupForceRepairAllContainers

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: this value forces NAS backup repair to check all metadata. It coul d fix some issues like 221911. Please remove it after it did all the work otheri wise it will happen every job run and it will take ages for big chains.

NetAppMaxSnapshotCountSameTime

- Type: REG_DWORD
- Default value: 10
- Description: works starting from **v11a**! This value helps to increase the limit t hat affects how many ss we create during backups on the NAS filer (BUG 336 324). Check how many tasks you have from 1 volume = the value for this reg value.

NasRepo_IsCorruptedObjectsVersionsTrackerDisabled

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Check bug 222307 for details

NasRepo_KeepAliveWriteFileStatsLoggingEnabled

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Enables extended logging for keep-alive operations on Datadoma in. Check out bug 305708 for details.

SAN Integration

NetAppDetailedLogging

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether NetApp API responses and requests are logged

NimbleAPILogDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether Nimble API responses and requests are logged

LogPublicPluginMethods

- Type: REG_DWORD

- Default value: 0 (disabled)
- Description: define whether PublicPlugin extended logging is enabled. To get complete logging of Public plugin methods the next key "SanPublicPluginSho wApiDetails" should be created too.

SanPublicPluginShowApiDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: this allows to enable log level 6 output for the storage plugins wi thout the need to enable it for the whole service

SanIBMShowApiDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether IBM API responses and requests are logged

LogWsApiFullDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether HPE 3PAR Web Services responses and requests are logged

VNXAPILogDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether VNXe RESTfull API responses and requests are log ged

CiscoHXLogRestAPI

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether Cisco HyperFlex API responses and requests are l ogged

VNXeUseRESTAPI

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define if we should work over RESTFull API or CLI

IsilonRestApiLogDetails

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: this enables additional logging for Isilon NAS Filer Storage Integr ation (File Change Tracking)

IbmHyperSwapUseSecondary

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: controls whether Veeam will use volume from secondary site to b ackup from

IbmFlashCopyCleanrateRate

- Type: REG_DWORD
- Default value: 0
- Description: define -cleanrate option for the storage snapshots created on IB M

IbmFlashCopyWaitTimeout

- Type: REG_DWORD
- Default value: 1 (in minutes)
- Description: how much time we will wait during the backup job (BoSS) before giving up and letting svc.veeambackup to do it later

IbmFlashCopyProductionWaitTimeout

- Type: REG_DWORD
- Default value: 5 (in minutes)
- Description: how much time we will wait during the backup job (SnapshotOnly) before giving up and letting svc.veeambackup to do it later

IbmFlashCopyMaxWaitTimeout

- Type: REG_DWORD
- Default value: 30 (in minutes)
- Description: how much time we will wait during any veeam console action or during restores before giving up and letting svc.veeambackup to do it later

VmfsLogEnabled

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: define whether VMFS library output will be logged during VMFS r escan

EMCUseUnityApi

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: define whether to use new dynamic attach logic for Unity or not (0 = old 'default attach')

NetApp7mUseFlexCloneForTargetSnapVaultRestore

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: use flexclone for Windows File level restore from NetApp 7-mode SnapVault (NFS access)

SkipCertificateCheck

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: skip certificate check for all the storages that are working throug h REST + vC certificate checks PLEASE USE STRICTLY WHEN THERE'S NO OTH ER OPTION (literally), our software must work and not around

IsNeedForceAddingAdmingPathPrefix

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: add ./admin to the path when we mount new datastore during SS FLR, used when SVM root vol protection is configured

NetAppClustGetRenamedTargetSnapshotSleepSec

- Type: REG_DWORD
- Default value: 5 (seconds)
- Description: how many seconds to wait before next try when we rename Veea mSourceSnapshot into VeeamSnapVault and we cannot find ss (Bug 181447)

NetAppClustGetRenamedTargetSnapshotRetryCount

- Type: REG_DWORD
- Default value: 3
- Description: how many tries to do when we rename VeeamSourceSnapshot in to VeeamSnapVault and we cannot find ss (Bug 181447)

NetAppMaxIteratorItems

- Type: REG_DWORD
- Default value: 10

- Description: this limits <num-records> field in our zAPI calls to NetApp, i.e. h ow many entries we want to receive in the answer

NetAppSnapRestoreTimeoutMin

- Type: REG_DWORD
- Default value: 60 (minutes)
- Description: timeout to complete SnapRestore operation

SanMaxConcurrentCreatingVmSnapshotsPerEsx

- Type: REG_DWORD
- Default value: 10
- Description: defines amount of snapshot tasks initiated on VMs which belong to the same ESXi host

SanMaxConcurrentCreatingVmSnapshotsPerVc

- Type: REG_DWORD
- Default value: 20
- Description: defines amount of snapshot tasks initiated on VMs which belong to the same vcenter

SanBackupPrepareAgentCount

- Type: REG_DWORD
- Default value: 8
- Description: defines amount of agent started to collect CTK and map disk regi on information

MaxConcurrentDeletingSnapshotsForCluster

- Type: REG_DWORD
- Default value: 4
- Description: defines a number of VMware snapshots deleted simultaneously p er cluster

SanBackupIscsiThroughFcpPriority

- Type: REG_DWORD
- Default value: 1
- Description: access FC mapped LUNs over iSCSI protocol

SanBackupFcpThroughIscsiPriority

- Type: REG_DWORD
- Default value: 0

- Description: access iSCSI mapped LUNs over FC protocol

SanBackupWaitVMSnapshotDeletion

- Type: REG_DWORD
- Default value: 1
- Description: define whether Veean will be waiting for VMware snapshot deleti on prior to disk processing

SanRescan_Periodically_Days

- Type: REG_DWORD
- Default value: 7 (days)
- Description: defines how frequently we should initiate periodic full rescan afte r Veeam Backup service is restarted

SanRescanSnapshotsParseFS

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: storage integration rescan has 2 stages: vC rescan and VMFS res can, this registry value controls the latter. It is perfectly fine to use in producti on unless customer has secondary storage. We won't show any vms inside ss on the secondary cause they are not connected to vSphere thus we need to p arse VMFS and look for .vmx files to be able to show the vms under each ss in UI.

SanOperationTimeout

- Type: REG_DWORD
- Default value: 600 (in seconds)
- Description: timeout for any API call we send to the storage

SanMonitorDisabled

- Type: REG_DWORD
- Default value: 0 (disabling disabled)
- Description: disable SanMonitor

SanMonitorTimeout

- Type: REG_DWORD
- Default value: 600 (seconds)
- Description: defines how frequently we should update SAN infrastructure and run incremental rescan for updated objects

SanMonitorFailedHostSkipRescanCount

- Type: REG_DWORD
- Default value: 10 (times)
- Description: defines amount of rescan operations the host won't be touched d ue to unavalability

SanSnapshotTransferWaitTimeoutMin

- Type: REG_DWORD
- Default value: 60*24 (minutes)
- Description: timeout to wait SnapVault/SnapMirror snapshot transfer completi on

HP3PARLunExportRetryCount

- Type: REG_DWORD
- Default value: 10
- Description: number of attempts to choose LUN id to export snapshot on prox y

SanVolumeCopyLockTimeoutMin

- Type: REG_DWORD
- Default value: 180 (minutes)
- Description: timeout for block level access for Unity/VNXe, we have some add itional logic in there cause of limitations of these storages

SanRescanSnapshotsCountInGroup

- Type: REG_DWORD
- Default value: 8
- Description: how many storage snapshots we process simultaneously from 1 volume during the rescan

IscsiCommandRetryCount

- Type: REG_DWORD
- Default value: 3
- Description: how many retries we're planning to do when working with storag e snapshots over iSCSI

IscsiDataLogEnabled

- Type: REG_DWORD
- Default value: 0
- Description: log additional messages when working with storage snapshots o ver iSCSI

SanVolumesProxyExportLockTimeout

- Type: REG_DWORD
- Default value: 600(seconds)
- Description: Seen in task log as Error: "Failed to wait mutex SanVolumesMoun tProxy : timeout 600 sec"

Hp3PARPeerPersistentUseSecondary

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: controls whether Veeam will use volume from secondary site to b ackup from

Hp3PARTempVirtualCopyMaxNumber

- Type: REG_DWORD
- Default value: 10
- Description: controls how many concurrent storage snapshots for the same v olume can be created (for 3PAR) //will be changed in u4

NimbleMaxTempSnapshotCount

- Type: REG_DWORD
- Default value: 10
- Description: controls how many concurrent storage snapshots for the same v olume can be created (for Nimble) //will be changed in u4

DirectNFSCheckDatastoresFromProxy

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: Controls whether Veeam should rescan all discovered NFS datast ores automatically every 4 hours. Set to 0 (disable) if Direct NFS is not used, and customer uses Automatic selection or Direct Storage Access modes on hi s proxies.

NetAppOrderedIPList

- Type: REG_SZ
- Description: Normally if you want to control what network is used for data tra nsfer between the NetApp and the proxy, use Preferred Networks in the conso le. However, you can override preferred networks with this registry setting. S pecify one or more IP addresses of NetApp network adapters, separated by se micolons; addresses will be tried from left to right.

ShowNimbleCloneVolumes

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: By default, cloned Nimble Volumes aren't shown in Veeam and ca n't be interacted with. By enabling this setting, cloned volumes can be seen a nd utilized for any storage snapshots or other backup processes.

UseStorageSnapshotsInVeeamZip

- Type: REG_DWORD
- Default value: 1 (0 to disable)
- Available in: v10 and later
- Description: Allows leveraging of Storage Snapshots for VeeamZip jobs

vPower NFS

NFSDefaultRootPath

- Type: REG_SZ
- Default value: C:\VeeamNFS
- Description: Back in the days when you couldn't specify a vPower server in th e repository settings, you had to change this setting and manually unmount t he old datastore from the ESX host.

RootFolder

- Type: REG_SZ
- Key: HKLM\SOFTWARE\Wow6432Node\Veeam\Veeam NFS
- Default value: C:\ProgramData\Veeam\Backup\NFSDatastore
- Description: Cache location specified in repository settings. See also KB1094.

IrMountLeaseTimeOut

- Type: REG_DWORD
- Default value: 30 (minutes)
- Note: Usually when increasing this you will also need to increase remotingTim eout

vPowerNFSDisableIPAuth

- Type: REG_DWORD (0 False, 1 True)
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Veeam\Veeam NFS\ (Should be set on the Repository where vPowerNFS runs)
- Default value: 0
- Description: Veeam B&R 9.5 Update 4 brought a new security model to our vP ower NFS datastore. Starting from U4 this datastore validates the permissions

of the hosts trying to connect to it. By default, access is allowed for the host which provisioned this datastore. The registry value reverts the U4 behavior back.

allowedHostAddr

- Type: REG_SZ
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Veeam\Veeam NFS\Connections\{manual} (Should be set on the Repository where vPowerNFS runs)
- Default value: Null
- Description: Veeam B&R 11a further improved vPower NFS security model. Refer to an article for a detailed description: https://xwiki.support2.veeam.local/bin/view/Main/Internal%20Technical%20Docs/Veeam%20Backup%20and%20Replication/General/Controlling-access-to-vPowerNFS-in-v11a/

Agent

These values should be set on each proxy or repository (where VeeamAgent.exe is running) unless otherwise noted.

MaxUploadStopTimeoutMs

- Type: REG_DWORD
- Default value: 1800000 (30 minutes)
- Description: defines a timeout for thread finalization by target agent

DataMoverLocalFastPath

- Type: REG_DWORD
- Default value: 2
- Description: Changes how connections between two VeeamAgents work when both agents are on the same server.
    - 0 - Uses normal network connection. Usually the slowest option. This was the default prior to v8 update 2.
    - 1 - leverages tcp loopback fast path on Win2k12 and above. (See also the key **IsLoopbackFastPathEnabled**)
    - 2 - uses our implementation of shared memory, which works on all versions of Windows

IsLoopbackFastPathEnabled

- Type: REG_DWORD
- Default value: 0
- Description: DataMoverLocalFastPath = 1 is not working in v11a any more. Use this key if you want to enable tcp loopback fast path.

    - 0 - disabled
    - 1 - enabled

ConnectByIPsTimeoutSec

- Type: REG_DWORD
- Default value: 300 (seconds)
- Should be set on the management server.
- Description: for example https://www.veeam.com/kb1976

AgentMaxReconnectRetries

- Type: REG_DWORD
- Default value: 30
- Should be set on the management server.
- Description: for example https://www.veeam.com/kb1781

AgentReconnectRetryIntervalSec

- Type: REG_DWORD
- Default value: 30
- Description: unclear, but in SF search you can find a lot of examples

AgentStartTimeoutSec

- Type: REG_DWORD
- Default value: 300
- Should be set on the management server. It could be used to increase transp ort agents' start timeout in **version 10** and newer. See bug 193600

VddkConfigPath

- Type: REG_SZ
- Default value:<empty>
- Description: Use this to enable Extended VDDK logging.

VddkWaitTimeout

- Type: REG_DWORD
- Default value: 300 (seconds) - 5 minutes
- Description: This specifies a timeout for the function WaitAllDisksClosed, it en sures that we don't hang in vddk while trying to close disks and disconnect fr om VC.

VddkHotaddSyncTimeoutMs

- Type: REG_DWORD

- Default value: 1800000 (in ms, which is 30 minutes)
- Description: The key should be created on proxy.

Even though it says hotadd, it applies to all modes.

There is a global mutex that we create in order to synchronize multiple VeeamAgent s processes (not threads!) on the proxy - so they won't be executing VixDisklibOpen VDDK API call simultaneously on this proxy.
Usually VixDisklibOpen should execute within seconds - but sometimes, because of unknown issues it takes minutes for vddk to open the disk.
This registry key specifies how much time VeeamAgent is going to wait for mutex. A ppears in logs as "[Timed out to lock hot-add mutex]".

HotAddIgnoreLockedVolumes

- Type: REG_DWORD
- Default value: 0
- Description: Under some circumstances v6 VixDiskLib may crash in hotadd m ode with something like "Panic: Win32 invalid_parameter error". Task fails wit h error message “channelerror: connection reset”.

Disable automount on proxy and add this value. Set it to 1.

VddkPreReadBufferSize

- Type: REG_DWORD
- Default value: 4 * 1024 * 1024 (bytes)
- Description: If backup is slow with bottleneck:source, especially with Direct S AN, try decreasing this, or setting it to 0.

NfsAsyncSessionEnabled

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: defines whether or not our new NFS client logic should be used f or backup. Must be created on each backup proxy!

NfsAsyncWriteEnabled

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: defines whether or not our new NFS client logic should be used f or the restore. Must be created on each backup proxy!

NFSClientsThreadsNum

- Type: REG_DWORD

- Default value: 1
- Description: defines how many connections per disk to the storage should be used, can be slightly increased. Must be created on each backup proxy!

NfsRpcSlotsCount

- Type: REG_DWORD
- Default value: 65536
- Description: defines how many requests (basically the size of the queue) we will send simultaneously to the NFS server/share during backup. Must be crea ted on each backup proxy! Try to use 128 for NetApp.

NfsAsyncRpcRecvThreadsNum

- Type: REG_DWORD
- Default value: Min(core,8)
- Description: defines how many threads should be used, directly affects the cp u load on the proxies. By default we will use cores=threads number for everyt hing less than 8 cores. If server has more than 8 cores, we will use 8. Must be created on each backup proxy!

NfsAsyncPrereadBlockSizeMb

- Type: REG_DWORD
- Default value: 2
- Description: defines the depth of the queue, we request this much data initiall y and then it becomes smaller chunks. Can be slightly increased if storage an d proxies are ready for the load. Must be created on each backup proxy!

NfsAsyncPrereadQueueDepthChunks

- Type: REG_DWORD
- Default value: 64
- Description: defines the depth of the queue, to be precise how many chunks of data will be handled in the context of 1 connection. Must be created on eac h backup proxy!

NfsConnectRetryCount

- Type: REG_DWORD
- Default value: 10 (in update 3a)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n\
- HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p and Replication
- HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Backu p Transport

- HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam NFS
- Description: controls the number of NFS connection attempts.

In version 9.5 update 3a the default number of NFS connection attempts was increa sed from 1 to 10.

This may potentially affect the job with storage integration via NFS in case customer has a lot of LIF-s (the job will try connecting to each of them 10 times per each whic h may degrade the performance). So sometimes you may want to change this beha vior back to 1 connection attempt setting this value to 1.

The agent is 32 bit so you have to create this value on proxy including the hive Wow 6432Node.

NetUseShareAccess

- Type: REG_DWORD
- Default value: 0
- Description: Add this on the proxy/repository. Agent will use NET USE to write to a UNC path. LOG: NET USE SHARE ACCESS : Enabled

AgentReadOnlyCache

- Type: REG_DWORD
- Default value: 2
- Description: 8.0U2 introduced caching which increases RAM requirements for the target agent.
  Disable = 0, Enable = 1, DisableOnlyForIncrementalWithDedupDisabled = 2, Always = 3
  Note: If this is enabled, Backup Copy job target agent will hold a lock on targe t files even if the session is idle.

HangedAgentKillTimeout

- Key: HKLM\SOFTWARE\Veeam\Veeam Backup Transport
- Type: REG_DWORD
- Default value: uncertain, maybe 3600 (seconds)
- Description: The Data Mover service tries to watch for agents that aren't doin g anything and stops them; sometimes it gets it wrong. In the logs you will se e "Agent '{GUID}' will be terminated due to reason: some I/O operation has h anged" and/or "WARN|AGENT [{GUID}] HAS HANGED UNEXPECTEDLY AND W AS TERMINATED." This may sometimes appear to the end-user as "Application is Shutting Down." Restart the Veeam Data Mover service to apply this registr y change. Surprisingly, the value is not created in wow6432node, even thoug h the transport service is 32-bit. When applied correctly, you will see "HANGE D AGENT KILL TIMEOUT, SEC:" in Svc.VeeamTransport.log. Recommended val ue for a workaround is 28800 seconds (8 hours).

OrphanedAgentKillTimeout

- Key: HKLM\SOFTWARE\Veeam\Veeam Backup Transport
- Type: REG_DWORD
- Default value: uncertain, maybe 1200 (seconds)
- Description: Use case unknown. In the logs you will see "Agent '{GUID}' will b e terminated due to reason: agent is orphaned." Restart the Veeam Data Mov er service to apply this registry change. Surprisingly, the value is not created in wow6432node, even though the transport service is 32-bit. When applied c orrectly, you will see "ORPHANED AGENT KILL TIMEOUT, SEC:" in Svc.VeeamTr ansport.log.

IscsiMountFsCheckRetriesCount

- Type: REG_DWORD
- Default: 6
- Description: iSCSI mount operations are now retried automatically to workaro und occasional “The device is not ready” errors which happen when mount op eration takes too long. By default, the mount is retried 6 times every 10 seco nds.

VddkOpTimeoutSec

- Type: REG_DWORD
- Default: unknown
- Suggested value: 3600 (decimal, in seconds)
- Description: Implements a timeout to kill the agent when VixDiskLib_Read() o r Write() operations are hung.

EnableFailoverToLegacyHotadd

- Type: REG_DWORD
- Default: 0
- Description: enables native HotAdd read mode instead of Windows API read. T o enable set the value to 1.

Backup Copy Job

SkipJobSourceRepositoryCheck

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: value controls possibility to use source backup repository as targ et repository for backup copy job (note: Not valid for Agent Backup Copy Jobs and Backup Copy Simple Mode)

BackupCopyJobReCheck

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: value 1 (enabled) forces Health Check after each run

BackupSyncMaxRetriesPerOib

- Type: REG_DWORD
- Default value: 5
- Maximum retries when network connection breaks between the agents (e.g. d ue to unreliable WAN)

BackupCopyDisableParallelProcessing

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (Parallel processing is enabled)
- Description: Backup Copy parallel processing was added in v9. Set this to 0 to switch back to sequential processing.

BackupCopyLookForward

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: If you do not want backup copy jobs to transfer the latest point w hen it restarts, set this to 1 to only look for restore points newer than the star t time.

BackupCopyMirrorAll

- Type: REG_MULTI_SZ
- Possible values BCSM job names, new line for each BCSM job you want it t o apply to.
- Default value: None
- Description: Will cause initial run of SimpleBackup Copies (mirroring mode) to move all points from source job, not just most recent. The Simple Copy job will queue each point in a chain one at a time, it is not done in bulk. Expect RPO warnings/failures for points made > the RPO Monitor settings, this is normal and expected for this type of Copy. Note: if source job has GFS points, all points will be copied, but will be created as increments: the target backup chain will be a simple one with 1 vbk file, but the amount of restore points will be the same as the source has.

Cloud Director

VcdBackupQuantSizeMb

- Type: REG_DWORD
- Default value: 512
- Description: added in Veeam 9.5 update 4. Similar to CloudConnectQuantSize Mb registry key, used in the vCD backup jobs created from a vCloud self-service portal or from a vSphere self-service portal. Every 10 seconds target a gent gets a quota of 512 MB (default value), once this quota is exceeded, tar get agent throws message Storage size quota exceeded. Waiting for quota inc rease. This key allows to increase quota size. Use this key if processing per ta sk reaches the limit of 51,2 MB/s and usage graph on a repository is showing spikes. **Due to the bug in 9.5 update 4/4a/4b the value of this key abo ve 2047 might lead to the unexpected consequences, so do not set it higher than 2047.**

VcdVappVmQueryParallelThreadsCount

- Type: REG_DWORD
- Default value: 4
- Description: added in Veeam 9.5 update 4b, starting with this version VBR qu eries vApps information in vCloud backup jobs using an amount of parallel thr eads configured using this key, by default VBR uses 4 threads. Check this bug also.

VcdSkipVappFileSessionsScheduling

- Type: REG_DWORD
- Default value: 0
- Description: added in VBR 10, related to bug 185225. Basically, it's the soluti on from the privatefix - set to 1 when you need to disable StoreOnce file sessi ons scheduler for vApps. As a result VBR will always assign file session resour ces for vApp containers.

CloudConnectQuotaAllocationMode

- Type: DWORD
- Default value: 0 (v10-v11), 2 (v12)
- Description: **v10** or newer. Possible values 0, 1, 2. This VCC key also affects t he vCD backup jobs created from a vCloud self-service portal. This key chang es the quota allocation mechanism for such jobs. By default, target agent get s a quota of 512 MB (default value) every 10 seconds, once this quota is exce eded, target agent throws message Storage size quota exceeded. Waiting for quota increase. It becomes a bottleneck if data is transferred faster. The key allows VeeamAgent to request the quota necessary for work:
    - 0 - **Default value (pre-v12)** - every 10 seconds quota is increased to 512 MB.
    - 1 - VeeamAgent.exe itself asks for the required quota.

    - 2 - **Default value (starting with v12)** - Hybrid mode, VeeamAgent asks for the required quota size of VcdBackupQuantSizeMb - **preferred value**

VcdReplicaEnableStaticIpValidation

- Type: REG_DWORD
- Default value: 1
- Description: **v12** only, enabled by default. Set to 0 to disable warnings in Cloud Director replication vApp tasks related to VMs with Static - Manual or Static - Pool ip allocation modes being disconnected from network on target side. Doesn't affect warnings in VM tasks. See also this article.

VcdReplicaEnableSummaryCompression

- Type: REG_DWORD
- Default value: 0
- Description: **v12.1** only, not enabled by default. Set to 1 to enable compression of VCD data and Network Mapping to VCD Snap replica. For details check https:*xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/12/4-Fixed-by-12-1-0-2131-GA/Bug-58691*xwiki.support2.veeam.local/bin/view/Main/Bugs%20and%20Fixes/Found%20Bugs/VBR/12/4-Fixed-by-12-1-0-2131-GA/Bug-586918

Hyper-V

HyperVIgnoreNonSnapshottableDisks

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: Hyper-V 2016 VMs with non-snapshottable disk such as disks connected via in-guest iSCSI initiator can now be processed by backup and replication jobs, with unsupported disks skipped and their content not included in a backup or replica. If you'd rather prefer the job to fail on such VMs (legacy behavior), create this value on the backup server and set it to 0.
- Version: 9.5 Update 3

EnableHvParallelTaskBuilding

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: Applies if you notice jobs rarely stuck forever on "Task progress 0%, Job progress 0%" in Hyper-V. Set it to 0 to disable parallel task allocation. Once the tasks are created, the jobs run in parallel mode normally.

HvTaskBuilderThreadCount

- Type: REG_DWORD
- Default value: 0 (no limit)
- Description: used together with EnableHvParallelTaskBuilding; with that key y ou can modify how many parallel threads are used to build tasklist. useful wh en default value generates too many requests and overloads the infra

HyperVVmMemoryLimitDecrementInPercent

- Type: REG_DWORD
- Default value: 30
- Description: When there is not enough RAM on target host, Replica VM memo ry gets adjusted to: res = (100% - decrement) * totalRAM. Where totalRAM - t otal host memory. decrement - percent specified by registry value. During fail back to original location we set memory to the original value.

CutHvVmSecuritySettings

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: See KB2021

EnableHvVdk

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: There are two different Windows FLR engines available for Hyper-V. By default, Veeam VDK driver is used. When set to 0, native Hyper-V mount for VHD(X) is used.

HvDelayBeforeSnapshotImportCompleteSec

- Type: REG_DWORD
- Default value: 0 (seconds)
- Description: See KB1844

HvLinuxFLRTempFolder

- Type: REG_SZ
- Default value: C:\VeeamFLR

HvSnapshotLifeTimeHour

- Type: REG_DWORD
- Default value: 72 (hours)
- Don't set it higher than 240 unless necessary. According to QA the maximum value is 596.

TimeoutForVmShutdownSec

- Type: REG_DWORD
- Default value: 120 (seconds)
- Description: defines timeout to automatically stop the shut down a VM task if no event from Hyper-V received

MaxSmb3SnapshotsNum

- Type: REG_DWORD
- Default value: 4
- Description: defines amount of concurent snapshots created on SMB 3.0 shar e in Hyper-V

SmbMaxSnapshotsNum

- Type: REG_DWORD
- Default value: 4
- Description: Defines the default value of concurrent snapshots for NEW SMB v olumes registered by Veeam. Can be used to set Max snapshots for non-windows SMB3 shares. If the shares are already registered in Veeam B&R, the value won't change anything for them, so you need to update the database v alue "max_snapshots_count" manually (for shares, the table is [dbo].[SmbFileShares]).

HvSleepAfterGuestInstalledSec

- Type: REG_DWORD
- Default value: 0 (in seconds).
- See description in Bug 38997

HyperVRemoteWmiToggleLogic2012

- Type: REG_DWORD
- Default value: 0 (false)
- If enabled, WMI requests will be proxied to the host to be run locally. Appears to have bugs, not recommended.

HyperVRemoteWmiToggleLogic2015

- Type: REG_DWORD
- Default value: 0 (false)
- If enabled, WMI requests will be proxied to the host to be run locally. Appears to have bugs, not recommended. Workaround for bug 91537, needs to be re moved after upgrade to version 9.5 Update 1.

HvWmiReconnectsCount

- Type: REG_DWORD
- Default value: 0 (false)
- Defines the amount of retries for failed WMI calls

HyperVDefaultWMITimeoutSec

- Type: REG_DWORD
- Default value: 3600 (decimal, seconds)
- Defines the amount of time for which Veeam B&R will wait confirmation from a Hyper-V host after requesting an operation via WMI

MaxVmCountOnHvHardSnapshot

- Type: REG_DWORD
- Default value: 8
- Description: For reliability reasons caused by Hyper-V backup architecture, wh en a hardware VSS provider is used the maximum amount of VMs per snapsh ot is limited to eight by default. This value can be increased on fast storage, o r decreased for troubleshooting purposes.

MaxVmCountOnHvSoftSnapshot

- Type: REG_DWORD
- Default value: 4
- Description: For reliability reasons caused by Hyper-V backup architecture, wh en a software VSS provider is used the maximum amount of VMs per snapsho t is limited to four by default. This value can be increased on fast storage, or decreased for troubleshooting purposes.

MaxHvConcurrentDeletingCheckpointsForHost

- Type: REG_DWORD
- Default value: 4
- Description: The max number of checkpoints Veeam will attempt to remove o n Hyper-V.

HvVssPowerShellDirectPriorityOverNetwork

- Type: REG_DWORD
- Default value: 0
- Description: Default (0) lets Network mode have priority. Set this to 1 for PS D irect to gain priority.

HyperVReferencePointCleanup

- Type: REG_DWORD

- Default value: 0 (in 9.5)
- Description: Introduced in 9.5 update 4, used to activate "DestoryReferenceP oint" method after Backup or Replication job in Hyper-V 2016. If the key is set to 1, during each job run Veeam will remove all the reference points from the VMs being processed. Please, keep in mind that not only the reference points created by Veeam will be removed, the reference points created for instance by a native HV replication will be deleted as well. Also, reference points remo val won't affect the size of VMCX files, if they are large already they won't be shrunk. See also bug 149319

Starting from V10 the key has 3 values:

- 0 - don't clean up reference points
- 1 - clean up only Veeam-made reference points **(default)**
- 2 - clean up all reference points

HvUseFullSnapshotType

- Type: REG_DWORD
- Default value: 1
- Description: Introduced in v10. By default, for Hyper-V 2016/2019 if CBT is dis abled in the job settings, Veeam creates checkpoints with type=2 (Full Snaps hot). If CBT is enabled, Veeam creates checkpoints with type=32768 (Vendor Specific, default recovery checkpoint type in 9.5). If you set this key to **0**, Vee am will always create checkpoints with type=32768 (which was our standard behavior in 9.5).

VMware

VmwareForcedHierarchyUpdatePeriod

- Type: REG_DWORD
- Default value:
- Description: 9.5 Update 1: Added experimental Broker Service behavior when it does not try to keep the vSphere infrastructure cache up-to-date continuou sly. Instead, it will query vSphere infrastructure hierarchy changes only when hierarchy data is requested, but no less often than the specified timeout. Usin g this mode significantly reduces vCenter Server traffic in large environments while only slightly delaying tasks requiring vSphere hierarchy data. To enable this mode, create VmwareForcedHierarchyUpdatePeriod (DWORD) registry val ue under HKLM\SOFTWARE\Veeam\Veeam Backup and Replication key on the backup server with the value in seconds (900 is the recommended value).

UseTLSv12ForNfc

- Type: REG_DWORD
- Default value:

- Description: By default, Veeam Agents connect to ESX hosts for NFC sessions over SSL 3.0 (for compatibility with earlier versions of ESX hosts). If an error o ccurs, Veeam Backup & Replication automatically fails over to TLS 1.2. To cha nge the default behavior, use this registry value.

ResourceScanPeriodForTriesSec

- Type: REG_DWORD
- Default value: 600 (seconds)
- Description: Maximum timeout for selecting proxy. Timeout is increased in 1.5 times, so by default error will happen in 15 minutes not 10

ViSoapJITCompilerGuardTimeout

- Type: REG_DWORD
- Default value: 300 (seconds)
- Description: controls the mutex timeout on expanding vsphere infrustructure. Use with large/busy environments when seeing "Failed to wait mutex famVim Service: timeout 300 sec exceeded". Removed from the code since v9.

VDLOpenTimeoutSec

- Type: REG_DWORD
- Default value: 1800 (seconds)
- Description: relates to BUG 31168 (VMWare (SR #14469352404)) Forces the t ask failure if VixDiskLib_Open lasts longer than the specified value.

This should be created on proxy - default value 30 minutes. It specifies a timeout for VixDisklibOpen, when VeeamAgent hangs in VixDisklibOpen. This timeout allows us to get out from hanged vmware code, so we fail the task/job and we get to processi ng of the next VM. See also url:http:*viqa.support2.veeam.local/questions/2414/v9-san-mode-failure*viqa.support2.veeam.local/questions/2414/v9-san-mode-failures

VMware65CbtSnapshotCheckEnabled

- Type: REG_DWORD
- Default value: 1
- Description: set value to 0 to disable the code that checks whether the backe d up VM has any snapshots (vSphere 6.5 only). For details see bug 215131.

DisableAutoSnapshotConsolidation

- Type: REG_DWORD
- Default value: 0
- Value: 0 = enables, 1 = disables
- Description: key to disable Snapshot Hunter

BackupVcEnabled

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1
- Description: By default, the vCenter database is excluded from VSS processin g and gets into the Exclusion list (https://www.veeam.com/kb2110). You may r emove the vCenter database from the Exclusion list, but it will be added back automatically on the next job run. In order to prevent our guest agent from re -updating this table every time use registry key.

ViHostConcurrentNfcConnections

- Type: REG_DWORD
- Default value: 28
- Description: Limit on number of concurrent NFC (NBD) connections per ESXi h ost. Default value was 7 in 9.0 and earlier. See Best Practices for more info.

VmReloadDelay

- Type: REG_DWORD
- Default value: 15000 (milliseconds)
- Description: defines delay between some operation against VMware VM and r eload task against it

CreateSnapshotTimeout

- Type: REG_DWORD
- Default value: 30*60*1000 // 30 minutes (milliseconds)
- Description: defines timeout to automatically stop the create snapshot task if no event from VMware received

RemoveSnapshotTimeout

- Type: REG_DWORD
- Default value: 60*60*1000 // 1 hour (milliseconds)
- Description: defines timeout to automatically stop the remove snapshot task i f no event from VMware received

ShutdownTimeout

- Type: REG_DWORD
- Default value: 15*60*1000 // 15 minutes (milliseconds)
- Description: defines timeout to automatically stop the shut down a VM task if no event from VMware received

MaxViVMPowerOnOffOperationTimeoutMin

- Type: REG_DWORD
- Default value: 60*60*1000 // 60 minutes (milliseconds)
- Description: defines timeout to automatically stop the power on or power off a VM task if no event from VMware received

MaxSnapshotsPerDatastore

- Type: REG_DWORD
- Default value: 4
- Description: specifies the number of storage snapshots that can be simultaneously created on same datastore

HotaddTimeoutAfterDetachSec

- Type: REG_DWORD
- Default value: 0
- Description: Implemented since v9.5u3. Controls the delay (not the timeout) between hot-add detach and remove VI Snapshot (BugID: 118005)

EnableSameHostDirectNFSMode

- Type: REG_DWORD
- Default value: 0 (disabled)
- 1 - Preferred Same Host. If a Direct NFS proxy exists on same host, Veeam waits for a free task slot there. If a proxy on same host does not exist, Veeam uses another Direct NFS proxy (on another host or physical server) or falls back to virtual appliance (hot-add) and finally to network (NBD) mode. This mode is not recommended with Nutanix.In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. But if it becomes unreachable for some reason, we will use other Hot-Add proxy B.
- 2 - Same Host Direct NFS mode. Recommended for Nutanix. If there is no Direct NFS proxy on the same host as the VM, it falls back to network mode (NBD).In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. If it becomes unreachable for some reason, we won't use other Hot-Add proxy B. Instead, we will switch to NBD mode.
- Note: this value must be created on veeam box, also be sure that you apply this together with reading Nutanix best practice guide (still valid for v10) https://www.veeam.com/nutanix-veeam-backup-replication-best-practices_wpp.pdf

EnableSameHostHotaddMode

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- 1 - In this case, when proxy A is available on the same host, we will leverage it. If it's busy, we will wait for its availability. But if it becomes unreachable for some reason, we will use other Hot-Add proxy B.

- 2 - In this case, when proxy A is available on the same host, we will leverage i t. If it's busy, we will wait for its availability. If it becomes unreachable for som e reason, we won't use other Hot-Add proxy B. Instead, we will switch to NBD mode.
- Note: has no effect when VSAN datastores are used.

ResetCBTOnDiskResize

- Type: REG_DWORD
- Default value: 1
- Description: Veeam resets CBT for any resized disk on VMware to prevent CBT corruption bug. If you have patched ESXi hosts, this behaviour may be no lon ger desirable.

EagerZeroedDiskRestore

- Type: REG_DWORD
- Default value: 1 (enabled)
- Description: In 8.0, the Direct SAN restore process creates lazy zeroed disks. I n 9.0, Direct SAN restore instead creates eager zeroed disks, since this was fo und to improve performance in most cases. To create lazy zeroed disks in full VM restore in version 9.0, set this value to 0. In 9.5, it's expected that you will be able to choose in the GUI.

StrictDatastoreScope

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Normally if you specify a datastore as the object added to a job, VMs that have an ISO in that datastore will be included in the job. If this is set to 1, ISOs will be ignored.

VMwareDisableAsyncIo

- Type: REG_DWORD
- Default value: 0
- Description: 9.5 update 4 registry key. The key should be applied on the VBR server. Starting from vSphere 6.7 Veeam started using Async IO in NBD/ NBDSSL transport mode, which can cause different issues, for instance during NTFS partition bitmap read when dirty blocks exclusion is enabled. Set to 1 to disable AsyncIo for all vSphere version not only 6.7. Does not require services restart.

VddkAsyncNbdBufferLimit

- Type: REG_DWORD
- Default value: 0

- Description: The key should be applied on the proxy server. Sets the I/O buffe r size in Async NBD mode. When VMwareDisableAsyncIo=1 isn't feasible in ca se of an NBD_ERR_INSUFFICIENT_RESOURCES error, try setting this to 104857 6. Does not require services restart.

VMwareVmReconfigurationTimeoutSeconds

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: **This key is added in v11a**, not applicable in earlier versions! A dds a timeout for tasks stuck on ReconfigVM step. Refer to bug 336326 for de tails.

File level restore

FLRMountFolder

- Type: REG_SZ
- Default value: C:\VeeamFLR
- Description: defines the location for a file level restore

ApplianceTmpfsMaxSizeInMb

- Type: REG_DWORD
- Default value: 0
- Description: Since VBR 11 only. The key sets size of /tmp in FLR Helper Applia nce. The key should be applied on the backup server, the value is in megabyt es.

VdkMaxDisksNum

- Type: REG_DWORD
- Default value: 20
- Description: See KB1772

FLROnDriveLetter

- Type: REG_DWORD
- Default value: 2
- Description: Defines where FLR Mounts disks:
  - TempFolder = 0
  - DriveLetter = 1
  - VeeamFLRFolder = 2

remotingTimeout

- Type: REG_DWORD

- Default value: 900 (seconds)
- Override whenever you see "Veeam.Common.Remoting" error after 15 minute s. May appear in logs as:

> Info Networking error: [Exception has been thrown by the target of an invocation.. (additional error message)

VmConnectionType

- **Applicable only to Veeam Backup and Replication v.10 and newer**
- Type: REG_SZ
- Description: Set to "**Vix**" if OtherOS network less restore should use "Vix" con nection by default (instead of Web). Do not forget to re-start an FLR session o nce the key has been applied.

InactiveFLRSessionTimeout

- Type: REG_DWORD
- Default value: 1800 (seconds)
- Timeout after which Veeam File Explorer closes with "FLR automaticaly closed because of inactivity." 7200 should be a safe bet to prevent the issue.

ReparsePointUpdateLimit

- Type: REG_DWORD
- Default value: 1000
- Set it to 0 to completely disable reparse point updates (VA command FileSyst em.VmdkUpdateReparsePoints) //This value is supposed to be created on the Veeam box

FlrVmToolsWaitingTime

- Type: REG_DWORD
- Default value: 600 (seconds)
- Description: defines timeout for virtual appliance guest IP detection

FlrApplianceIpWaitingTime

- Type: REG_DWORD
- Default value: ? (seconds)
- Description: defines timeout for stabilizing FLR appliance IP address (not the l owercase "p" in Ip).

FlrBatchTransfer

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)

- Description: something could be found in SF search

LinuxFLRApplianceMemoryLimitMb

- Type: REG_DWORD
- Default value: 1024 (Mb)
- Description: FLR appliance memory size.

EnableRestoreSNMPTraps

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: Set this to 1 to trigger SNMP traps for Windows and Multi-OS File-Level Recovery.

DnsServersList

- Type: REG_SZ
- Description: As you know if OtherOS FLR appliance is configured with a static ip-address there are no GUI options to set DNS servers. If you need your Othe rOS FLR appliance to have DNS servers set you may specify DNS servers' ip a ddresses using this key. Use a semi-colon as a delimiter if you want to specify more than one. Might be useful in certain configurations when the appliance has to resolve ESXi servers ip-addresses.
- Example: 172.24.49.141;10.11.12.13

ReFSMountMode

- Type: REG_DWORD
- Default value: 0
- Description: Registry key applies to v12 only. Create this on the mount server with a value of 1 to force Veeam to mount ReFS disks using VDK, like it did be fore v12. By default in v12 the Mount Service will try to mount ReFS volumes as VHD mounts instead of the traditional VDK mount. This is to workaround a n issue where some configurations could result in a BSOD on the mount serve r. The new default mount method may however have issues mounting ReFS v olumes greater than 64 TB in size being unable to mount properly. The old VD K mount mode can mount ReFS volumes greater than 64 TB.

LinuxFLRApplianceKeepAliveForDebugMins

- Type: REG_DWORD
- Default value: 0
- Description: If more than 0 keeps OtherOS Helper appliance alive allowing to troubleshoot the issue if it happened on its side, like log in and get the logs.

SureBackup

ForceNicInfoLoadingForVm

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: allows us to properly handle the vms in the SureBackup job when we load them from the storage snapshot and if their network adapters are ba sed on a dVswitch

SnapshotVmRetryCount

- Type: REG_DWORD (0 do not create snapshot in SureBackup, 1+ snapshot cre ation attempts)
- Default value: 3
- Description: Create reg.key HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup, add REG_DWORD value name 'Snapshot VmRetryCount'. 'data' 0 to disable snapshot creation in SureBackup. Can be u seful VMware issues while snapshot creation (our issue like 75818) 'data' 1 or higher to set number of retries

Mode

- Type: REG_DWORD (0 Analyze, 1 Wait)
- Default value: 0 (Analyze)
- Description: Create reg.key HKEY_LOCAL_MACHINE\SOFTWARE\VeeaM\Veeam Backup and Replication\SureBackup\Algorithms\PowerOnVm.StableIp, add RE G_DWORD value name 'Mode', 'data' 1 to change the mode to 'wait'.

MountLeaseTimeOut

- Type: REG_DWORD
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\VeeaM\Veeam Backup and Replication \SureBackup\
- Default value: 600 (seconds)
- Description: Use to increase mount lease time out for large VMs (if mounting t ake more than 10 minutes for a single disk).

SmartDetect

- Type: REG_DWORD (0 False, 1 True)
- Default value: 1 (enabled)
- Description: Use to disable 'smart detect'. Create reg.key HKEY_LOCAL_MACHI NE\SOFTWARE\VeeaM\Veeam Backup and Replication\SureBackup\Algorithms\ PowerOnVm.StableIp

RestrictedNetworkSymbols

- Type: REG_SZ
- Default value: "~`!@#$%^&*+=;'><|?*:\""
- Description: restrict specific symbols in the network names for vLab

SupportOpenVmTools

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Description: Allows successful 'Heartbeat' test for VMs with OpenVMtools. Reg .key HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n\SureBackup, HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\ Veeam Backup and Replication\SureBackup

MaxNetworkNameLength

- Type: REG_DWORD
- Default value: 60
- Description: Allows to use vNetwork with longer names (34866)

RemoveBiosUuid

- Type: REG_DWORD
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n\SureBackup
- Default value: 0 (disabled)
- Description: Enable by setting to 1. Assigns random bios UUID to VM in sureb ackup (applicable to VMware only). Some applications (i.e. Citrix), might work incorrectly in case two VMs with the same bios UUID under the same vCenter.

RemoveVmSnapshot

- Type: REG_DWORD
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n\SureBackup
- Default value: 0 (disabled)
- Description: Set to 1 to skip deleting the snapshot on the restored VM when t he Surebackup job completes. For more info, see the user guide.

UseHibernation

- Type: REG_DWORD
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replicatio n\Surebackup\Algorithms\PowerOnVm
- Default value: 0 (False)
- Description: Historically, this key has been implemented to check whether VM in the backup was in hibernated status or not. The check looked the following: *If VM is loaded for less than a minute – VM is in Hibernated status and we wai*

ted additionally for ½ of Maximum Allow Boot Time. Although technologies went further and some high-end storages came to the scene. Nowadays, VM being booted in less than a minute - a common scenario. In 9.5 u2 Hibernate is disabled by default (Bug ID 94767). Summing it up, this reg key is now responsible for **making a decision** to wait for additional time (after VM is booted for a minute) or not.

UseVhvEnable

- Type: REG_DWORD
- Key: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication\SureBackup
- Default value: 1 (enabled)
- Description: Set to 0 to consider flags vhv.enable in the vmx file for restored VM. It is used when verified VM has enabled feature 'Enable Windows Virtualization Based Security' (Also referred to as VBS) starting from VMware 6.7 Update 1.

AntivirusScanTimeout

- Type: REG_DWORD
- Default value: 86400 (24 hrs in seconds)
- Description: By default the mount service will cancel an AV scan that has not finished within a 24 hour period. This registry value controls how long the mount service will allow the scan to run before cancelling it. Value should be set in seconds. The value needs to be placed on the mount server, and then the mount service must be restarted afterwards.

WAN accelerator

Path: HKLM\SOFTWARE\Veeam\Veeam WAN Accelerator

UseExtendLogging

- Type: REG_DWORD (0 False, 1 True)
- Default value: 0 (disabled)
- Set on the source WA server

WanRootCachePath, HashRepositoryBasePath, HashRepositoryGlobalDedupBasePath

- Type: REG_SZ
- Description: Paths specified during installation of the WAN accelerator. See KB 1828

Encryption

DisablePublicIPTrafficEncryption

- Type: REG_DWORD
- Default value: 0
- Description: By default, traffic between different subnets and on public addre sses is encrypted. To globally disable network encryption between agents, set to 1

ForceAgentTrafficEncryption

- Type: REG_DWORD
- Default value: 0
- Description: To force Veeam encrypt all of its network connections. This settin g is for data mover to data mover communication only (for the actual payload transfers), as the rest of communications are always encrypted.

VEX

DefaultCASServer

HKLM\SOFTWARE\Veeam\Veeam Backup Reporting

- Type: REG_SZ
- Description: Added ability to force CAS server for Veeam Explorer for Microsof t Exchange (instead of automatically detecting one)

Requires restarting Veeam Backup Enterprise Manager service

VexIgnoreCertificateErrors

- Type: DWORD
- Default value: 0
- Description: Set the value to 1 to ignore certificate errors
- **Note:** The key should be set only on related mount server!

VESP

SPSToSQLMap

- Type: REG_SZ
- Description: In some cases Veeam is not able to determine which SQL server backup contains databases with the Sharepoint content when going through t he Sharepoint Item Restore wizard. This can happen when they use an alias f or their SQL server.
  To determine what Veeam should be looking for, you can check auxiliary meta data in the Task logs, look for SharePointInfo and SqlInfo for both Sharepoint a nd Microsoft SQL VMs. You can also find that in the .vbm file. It is possible we

haven't even collected any because for example VSS has failed or was disabled.

- How-to:
  - Create *HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\SPSToSQLMap* key. It should be a sibling to the *Veeam Backup and Replication* key, not its child.
  - Add String values, where Name is the Sharepoint server FQDN (if FQDN doesn't work, try NetBIOS), and Data = "<SQL_SERVER>\<SQL_INSTANCE>".
  - E.g. Name = DHPSP1.domain.local (or e.g. DHPSP1), Data = DHPSPSQL1\SP2013. If using the default unnamed instance, Data would just be "DHPSPSQL1".
  - If you have multiple SQL servers for a single Sharepoint, separate instance names by **;** e.g. DHPSPSQL1\SP2013;DHPSPSQL2\SP2013.
  - Add as many as needed if there are multiple Sharepoint servers.
  - Restart Veeam Backup Shell.

Example Screenshot

Warning: the key will not work if Sharepoint and SQL server backups are performed on different platforms, i.e., Sharepoint is backed by VBR and SQL cluster running SQL servers is backed up by Agents, or SP is backed on Vmware and SQL is backed up on Hyper-V Warning: the key will not work if Sharepoint and SQL server backups are performed on different platforms, i.e., Sharepoint is backed by VBR and SQL cluster running SQL servers is backed up by Agents, or SP is backed on Vmware and SQL is backed up on Hyper-V.
Use the following workaround: start FLR for Sharepoint VM , start VESP from ribbon and manually specify SQL server and instance holding Sharepoint database.

Oracle processing

WARNING: In the case of Linux VeeamOracleAgent.xml must be placed not just in /tmp (which is the default), but in the actual path where your Veeam Oracle Agent binary starts. For Linux, it is /tmp, but can be changed with the **LinAgentFolder** reg key. Your config VeeamOracleAgent.xml **will not be read from /tmp if you changed the agent deployment folder to another location**. Move you config file accordingly. Keep in mind that VeeamOracleAgent.xml cannot be used for VIX, cause it always creates unique sub-folders in /tmp for running our agents (and you can't place this config there).

DisableOracleProcessing

- Type: REG_DWORD
- Default value: 0
- Description: Should be added on the guest OS. For Windows: in HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication with a value =1.

For Linux: in /tmp create a file VeeamOracleAgent.xml with the following cont ent <config DisableOracleProcessing=1></config>

OracleSkipNoArchiveLogDB

- Type: REG_DWORD
- Default value: 0
- Description: Should be added on the guest OS. For Windows: in HKEY_LOCAL_ MACHINE\SOFTWARE\Veeam\Veeam Backup and Replication with a value =1. For Linux: in /tmp create a file VeeamOracleAgent.xml with the following cont ent <config OracleSkipNoArchiveLogDB=1></config>

OracleTempLogPath

- Type: REG_SZ
- Default value:**<Drive with most free space>:\Veeam\Backup\ OracleLogBackup** In previous versions (unclear which but likely anything p re9.5U4), was %programdata%\Veeam\Backup\OracleLogBackup\
- Description: Location where redo log files are stored during backup. Should b e added on the guest OS. For Linux: in /tmp create a file VeeamOracleAgent.x ml with the following content <config OracleTempLogPath=”/location”></ config> and make sure that path has permissions for write/read.

DeleteOracleAbsentLogFiles

- Default value: true
- Description: Helps us to skip absent logs that presented at the standby instan ce in the dataguard environment while back up/truncate since we still mean t hem as local ones and obviouly fail. Should be added on the guest OS. For Lin ux: in /tmp create a file VeeamOracleAgent.xml with the following content <c onfig DeleteOracleAbsentLogFiles="false"></config> and make sure that pat h has permissions for write/read.

SkipCleanUpIfFail

- Default value: false
- Description: Helps us to leave (not to delete) the database in case of unsucce ssful restore try. In order to apply it, we should add the parameter to "C:\ ProgramData\Veeam\Backup\OracleExplorer\Config.xml" in such a way :

<OracleExplorer>

<Oracle SkipCleanUpIfFail="True" />

</OracleExplorer>

LinuxWriteCacheFolder

- Added in: v10
- Type: REG_SZ
- Default location: /var/tmp
- Description: Path for mount cache on mount host for linux remote mount (via fuse). Useful on oracle restores and a few other linux restore items. Add it on the Mount server

Cloud Connect

The Veeam Cloud Connect Service frequently rescans the registry, so it is not usuall y necessary to restart it.

CloudConnectionLoggingLevel

- Type: REG_SZ
- Veeam version: 12.0
- Default value: 2
- Description: Values 0-6 (from Disabled to Ultimate Detailed). Provides additio nal logging on VCC activities, and will add more lines to most of the logs relat ed to VCC service. Can be set on the provider and / or on the tenant sides. Might affect VCC server performance so it is suggested to remove the entry a fter the required data is collected.

CloudConnectReportTime

- Type: REG_SZ
- Veeam version: 9.0
- Default value:
- Description: specifies the time when the daily report is sent. Use 24h format, l ocal time zone. If the key is not specified - it is expected that VCC report is go ing to be sent out slightly later each day.

CloudConnectBinGfsNotificationSeverity

- Type: REG_DWORD
- Veeam version: 9.5U3
- Default value: 2
- Description: regulates the warning message about enabling GFS when CloudB in is turned on the SP side. 0 - disable message; 1 - informational; 2 - warning ; 3 - error; 4 - job fail. Can be also enabled on the tenant side, in which case it overrides a value on the SP side.

ResolveCloudGatewayAddressesToIPs

- Type: REG_DWORD
- Default value: 0

- Description: tenant side key, set it to 1 to make job resolve dns name of provi der gateway on veeam server instead of letting VeeamAgent to resolve the n ame - this key helps when Linux VeeamAgent crashes or when there is no wor king name resolution on the server where VeeamAgent runs.

EnableSSLv3Failback

- Type: REG_DWORD
- Default value: 0
- Description: By default, SSL 3.0 cannot be used in Veeam Cloud Connect infra structure starting from Veeam Backup & Replication 9.5. To enable communic ation over SSL 3.0, use the EnableSSLv3Failback registry value (must be creat ed on the SP and client backup servers).

DisableSuccessCloudConnectReport

- Type: REG_DWORD
- Default value: 0
- Description: Set value to 1 to disable cloud connect daily report.

DisableVpnServerFirewall

- Type: REG_DWORD
- Default value: 0
- Description: Set value to 1 to disable Firewall on Cloud NEA. By default, only I P addresses fetched from CloudGateway servers are allowed.

CloudConnectionTimeoutSeconds

- Type: REG_DWORD
- Default Value: 15 (seconds) before 9.5 U2 (9.5.0.1038)
- Default Value: 180 (seconds)
- Description: Only works on V9.0.0.1491+, do not apply on any older version. Key to extend SSL Connection attempt, if connection attempt times out after 15 seconds. Tenant Side key.

PeerCloudConnectionsLimit

- Type: REG_DWORD
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gate Service
- Default Value: 16 (v8) or 64 (v9)
- Description: Allowance for number of tenant connections to a gateway. Key g oes on gateway servers only.

MaxSimultaneousCloudConnections

- Type: REG_DWORD
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gate Service
- Default Value: 256 (v8) or 1024 (v9)
- Description: Set's the number of concurrent streams to a gateway (regardless of tenant count). Key goes on gateway servers only.

CloudSvcHost

- Type: REG_SZ (string)
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Veeam\Veeam Gate Service
- Default Value: list of IPs and names of the VCC server known to the VCC serve r itself. List is separated using ";". Example: 172.17.18.101;10.7.7.9;myvcc.co mpany.local
- Description: Sets IPs and names for CGW to reach the VCC server. You might want to edit it if the VCC server is not in the same local network with a CGW. CGW service restart is required. NOTE: the key will be repopulated if someone clicks through the CGW settings on the VCC server.

UseVpnOverTcp

- Type: REG_DWORD
- Default Value: 0
- Description: Set it to 1 if you would like for partial failover to be working over TCP protocol instead of UDP (Could be used for troubleshooting purposes). Sh ould be implemented only on Cloud Provider's Veeam server.

EncryptedTenantBackupsOnly

- Type: REG_DWORD
- Default Value: 0
- Description: Fails any tenant's backup/BC job if encryption is disabled. Should be implemented only on Cloud Provider's Veeam server.

NEACustomIPExclusions

- Type: REG_SZ
- Default value:
- Description: Added ability to exclude particular IP addresses in the service pro vider side network extension appliance firewall. Create registry value under H KLM\SOFTWARE\Veeam\Veeam Backup and Replication on the service provide r side backup server, and specify IP addresses to exclude separated by semic olon.

CloudReplicaNoStaticIPsDetectedWarning

- Type: REG_DWORD
- Default value: 1
- Description: during the job performance, in the list of operations for a non-Windows VM included in the job, Veeam Backup & Replication will display a w arning that no static IP addresses are detected for a VM. If in fact a VM has a static IP address and network mapping settings are specified for a VM, this wa rning can be ignored. To remove the warning from the job session statistics, o n the tenant Veeam backup server, create the registry value CloudReplicaNoS taticIPsDetectedWarning = 0 (DWORD) and restart Veeam Backup Service.

DigestsFinalizationTimeoutMin

- Type: REG_DWORD
- Default value: 10
- Description: should be added at the tenant's side; the value should be calcula ted experimentally

UseModifiedCloudBackupsUpgradeAlg

- Type : REG_DWORD
- Default value: 0
- Description: value 1 enables modified algorythm of the upgrade, when at first tenant sends the metadata with reduced auxdata in OIBs, and then every OIB is being upgraded separately. This key should be applied at the tenant's side.

SkipSavingSharePointInfoToVbm

- Type: REG_DWORD
- Default value: 0
- Description: value 1 enables the behavior when during the metadata generati on we cut sharepoint info from the auxdata. This key should be applied ato bo th sides (tenant and SP) if the backup of the sharepoint VM performs locally a nd to the cloud.

ShowNewVmsColumn

- Type: REG_DWORD
- Default value: 0
- Description: value 1 add New VMs column to the report

CloudIntrastructureReachingCapacityThresholdMinutes

- Type: REG_DWORD
- Default value: 5
- Description: Sets the threshold when "Reaching capacity" Infrastructure statu s is triggered on Cloud Connect Server.

CloudIntrastructureOutOfCapacityThresholdMinutes

- Type: REG_DWORD
- Default value: 10
- Description: Sets the threshold when "Out of capacity" Infrastructure status is triggered on Cloud Connect Server.

ResourceScanVpnDefaultPeriod

- Type: REG_DWORD
- Default value: 15
- Description: Defines how often a VPN connection between NEAs is checked, minutes

VCCReplicaIPAddressWaitTimeoutSec

- Type: REG_DWORD
- Default value: 600
- Description: in 9.5 update 3a - hotfix for 78793 should be installed. Will be inc luded in 9.5u4. Should be applied on SP side. The key changes the default wai ting timeout (10 minutes) for replica IP-address during the failover test. Servi ces restart is not required after the key modification.

CloudApplianceDebug

- Type: REG_DWORD
- Default value: 0
- Description: value 1 enables detailed parprouted daemon logging in NEA.

CloudConnectQuantSizeMb

- Type: REG_DWORD
- Default value: 512
- Description: every 10 seconds target agent gets a quota of 512 MB (default v alue), once this quota is exceeded, target agent throws message Storage size quota exceeded. Waiting for quota increase. This key allows to increase quota size. Use this key if Cloud Connect processing per task reaches the limit of 51 ,2 MB/s and usage graph on CC repo is showing spikes.

CloudConnectLogBackupConcurrentTaskCount

- Type: REG_MULTI_SZ
- Default value: 20 per tenant
- Description: Relevant for Backup Copy Simple Mode, starting from v10 we can backup SQL / Oracle logs to the cloud. An amount of slots allocated to a tenan t for such log copy operation can be set here. Use the next notation: Tenant_N ame=an_amount_of_slots, **v10** only.

- Example: Tenant1=10

CloudConnectQuotaAllocationMode

- Type: DWORD
- Default value: 0
- Description: **v10 or newer**. Possible values 0, 1, 2. This key changes the quo ta allocation mechanism in Veeam Cloud Connect. The very same key also aff ects the vCD backup jobs created from a vCloud self-service portal. By default , the Cloud Service allocates a quota every 15 seconds, increasing it to 512 M B ([CloudConnectQuantSizeMb] key). It becomes a bottleneck if data is transf erred faster. The key allows VeeamAgent to request the quota necessary for work:
  - 0 - **Default (pre-v12)**, Cloud Service every 15 seconds increases the quota to 512 MB.
  - 1 - VeeamAgent.exe itself asks for the required quota.
  - 2 - **Default value (v12 or newer)**, Hybrid mode, VeeamAgent asks fo r the required quota size of CloudConnectQuantSizeMb **PREFERRED V ALUE** if you plan to change it.

MaxQuotaAllocationSize

- Type: QWORD
- Default value: 2 000 000 000
- Description: max size of requested storage quota. Used in CloudConnectQuot aAllocationMode = 1. Possible values: 0 - 4 294 967 296

CloudConnectDisableDiskMounting

- Type: DWORD
- Default value: 0
- Description: set 1 to disable disk mount attempt during replication to cloud (f or network mapping). Useful for test machines without OS installed.

CloudVcdReplicaPreserveMAC

- Type: DWORD
- Default value: 0
- Description: set 1 to preserve MAC addresses for cloud replicas of vCD tenant s. Should be set on the SP side.

CloudConnectCRLCheckMode

- Type: REG_DWORD
- Default value: 1
- Description: This key controls SSL certificate checks with jobs going to Cloud Connect:

    - 0 - all issues with Cloud Connect certificates will abort the job
    - 1 - default; OfflineRevocation status is ignored, all other errors = failure
    - 2 - ignore OfflineRevocation and Warning: RevocationStatusUnknown errors
    - 3 - ignore all above + PartialChain error.

CloudConnectEnableAdditionalBackupSync

- Type: DWORD
- Default value: 0
- Description: starting from 11a CP3, set 1 to enable synchronization of restore points removed by VCC Retention Job to tenant's VBR (affects GFS restore points mainly). Value should be added on tenant's VBR, no restart is requied. See the bug #336142 / 356062

CloudConnectEnableVcdAuthenticationCache

- Type: DWORD
- Default value: 0
- Description: starting from 11a, set to 1 to enable vCD authorization cache, decreases amount of requests VCC sends to vCD when vCD tenants interact with VCC.

CloudConnectDisableExtentLoadSelectionMode

- Type: DWORD
- Default value: 0
- Description: Key for Cloud Connect task scheduling. If the key is 1, while selecting SOBR extent Veeam will ignore extents slots load (if it is less than 100%) and will sort them by free space instead. Scenario: after sorting extents by priority groups (Preferred > Optional > etc.), we will pick an extent with the most free space available. Until all its slots are taken, its load will count as 0. When all its slots are taken, its load will be 100%, and then we will take an extent with the 2nd most free space. See bug 548359

Agent Management

AgentManagementValSshTimeout

- Type: REG_DWORD
- Default value: 300000 (milliseconds)
- Description: under some circumstances, management SSH connection might be terminated due to timeout. The value allows controlling the timeout. Prior to Backup & Replication v9.5 update 4a timeout is not configurable.

SshConnectionCheckElevateOpTimeoutSec

- Type: REG_DWORD
- Default value: 10 (seconds)
- **IMPORTANT**: You don't apply the key as a random workaround. You need to make sure your timeout issue is related to sudo or su utility
- Description: this key tracks **sudo** command timeout when rescanning a prote ction group, or performing various tasks that require elevation on Linux machi ne managed by Veeam Backup and Replication

ProtectionGroupIgnoreOwnership

- Type: REG_DWORD
- Default value: 0 (False)
- **IMPORTANT**: Added in v12 superseding "AgentDiscoveryIgnoreOwnership" k ey
- Description: if set to 1, allows VBR to forcefully take ownership of the manage d Agent or Plugin already owned by another VBR

EndPointServerSslPort

- Default value: 10005 (decimal)
- Type: REG_DWORD
- Description: Used to change port on which VBR is listening for managed VAW connections. Especially useful to change it if the customer has Qualys agent o r some other app taking default port on the VBR server.

Plugins

PluginEmailNotifications

- Type: REG_DWORD
- Default value: 1
- Possible values:
  - Value: 0 = disable all
  - Value: 1 = disable success (default if key is not present)
  - Value: 2 = disable success, warnings
  - Value: 3 = disable success, failed
  - Value: 4 = enable all
- Description: Successful email notifications are disabled by default to make su re that Veeam B&R won't kill your mailbox due to the email report being gene rated for every plugin job run. Plugins use global email configuration options.

ProtectionGroupIgnoreOwnership

- Type: REG_DWORD
- Default value: 0 (False)
- **IMPORTANT**: Added in v12 superseding "AgentDiscoveryIgnoreOwnership" k ey

- Description: if set to 1, allows VBR to forcefully take ownership of the manage d Agent or Plugin already owned by another VBR

DB2PluginReuseStorageTimeMinutes

- Type: REG_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for Plugin for DB2 backups

SapHanaPluginReuseStorageTimeMinutes

- Type: REG_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for SAP HANA Plugin backups

SapOraclePluginReuseStorageTimeMinutes

- Type: REG_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for SAP on Or acle Plugin backups

OracleRMANPluginReuseStorageTimeMinutes

- Type: REG_DWORD
- Default value: 1440
- Description: regulates the .vab storage reuse time (in minutes) for Oracle RM AN Plugin backups

DbPluginForceExclusiveStorageUsageLimitation

- Type: REG_DWORD
- Default value: 0
- Description: change to 1 to enforce exclusive storage usage (not more than one FIB is written to the file SIMULTANEOUSLY. That does not mean that there will be mot more than 1 FIB in storage - if they are written one after another - it will store more than one FIB). May be required for repositories that are using gateways (NFS, SMB, Storage Appliances) for better performance

AWS Plug-in for Veeam Backup & Replication

PerformanceLogEnabled

It is **not recommended** to disable Performance Logging to save disk space. Instead , use PerformanceLogArchiveRetainPeriod to retain fewer logs.

This registry value should only be used for troubleshooting and removed before closi ng the case.

- Type: REG_DWORD
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default Value: 1
- Possible values:
  - 0 = Disable Performance Logging
  - 1 = Enable Performance Logging
- Description:

In AWS PS v5, we implemented Veeam.AWS.Collect.Performance.log, which logs req uests and responses to/from [VB client] and [DbProvider client] connected with a pa rticular VB.
This log is located in folder - *\Veeam\Backup\Plugins\AWS\<VB name>

This key is added just in case to be able to turn the performance log off. Performanc e log activity will still keep running in the background, but this key allows you to dis able writing performance messages to a log, which saves disk space.

PerformanceLogArchiveRetainPeriod

- Type: REG_DWORD
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default value: 60
- Possible value = (# of days)
- Description:
  This key is to set a rotation period for archived Veeam.AWS.Collect.Performan ce.log, which is used for logging requests and responses to/from [VB client] a nd [DbProvider client] connected with a particular VB.

Rotation period = The time of archive creation + 7 days + PerformanceLogArchiveR etainPeriod

So the minimum rotation time for archives is 7 days when the PerformanceLogArchi veRetainPeriod is set to 0.

This affects logs located in folder - *\Veeam\Backup\Plugins\AWS\<VB name>

PerformanceLogSize

- Type: REG_DWORD
- Path: HKEY_LOCAL_MACHINE\SOFTWARE\Veeam\AWS Platform Service
- Default value: 100
- Possible values: (# in MB)
- Description:
  This key sets a maximum size for Veeam.AWS.Collect.Performance.log, which

is used for logging requests and responses to/from [VB client] and [DbProvide r client] connected with a particular VB.
This log is located in folder - *\Veeam\Backup\Plugins\AWS\<VB name>

Restore To Azure

AzureApplianceRmVmSize

- Type: REG_SZ
- Default: Standard_A0
- Version: 9.5
- Desc: Default Azure Appliance size for RM model

AzureApplianceRmVmPremiumSizeDefault

- Type: REG_SZ
- Default: Standard_DS1
- Version: 9.5U4
- Desc: Default size for appliance size if premium storage was chosen

AzureApplianceRmVmPremiumSizes

- Type: REG_MULTI_SZ
- Default: { "Standard_DS1", "Standard_DS2", "Standard_DS3", "Standard_DS4" , "Standard_DS5" }
- Version: 9.5U4
- Desc: To specify several available sizes for Veeam to chose from if premium st orage was chosen

AzureDiskProcessingThreadCount

- Type: REG_DWORD
- Default value: 8
- Description: Self-explanatory. A number of agent's threads for a disk processi ng. Change to 64 in order to get a better performance. Default value 64 will b e included into VBR10a (Update 1)

AzurePreferPrivateIpAddressesForProxyandLinuxAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Version: Available by default since 9.5U4
- Description: Determines whether we will attempt to use PrivateIP on Azure Pr oxy and Linux Appliances for restore to Azure. By default Veeam will only try t he Public IPs for the appliances/proxy. If Expressroute or other VPN to Azure is in place, this key is required. **NOT FOR ARCHIVING JOBS. Only for restore s to Azure**

Restore to AWS EC2

AwsApplianceUsePublicIp

- Type: REG_DWORD
- Default: True (1)
- Version: 11
- Desc: Toggles whether we try to use public or private IP on proxy for Restore t o EC2

AmazonDefaultProxyImage

- Type: REG_MULTI_SZ
- Default:

ubuntu-bionic-18.04-amd64-server-20180522-dotnetcore-2018.07.11@ubuntu@22
ubuntu-bionic-18.04-amd64-server@ubuntu@22
ubuntu@ubuntu@22

- Version: 11
- Desc: Specifies the Amazon Marketplace Image for Freezing Job/Restore to EC 2 proxy. See bug 299060

AwsSearchAmiMode

- Type: REG_DWORD
- Value: 1 or 0 (1 = any AMI; 0 = only amazon-owned)
- Default: 0 (only amazon-owned)
- Version: 11
- Desc: Enables/Disables AMI filtering by owner, by default Veeam only searches through Amazon-owned images.

AwsFailIfGptConversionFailed

- Type: REG_DWORD
- Default: True (1)
- Version: 12
- Desc: See bug 447654

VmRestoreDisableDsrm

- Type: REG_DWORD
- Default: 0
- Version: 12
- Desc: See bug 363746

Restore to Google GCE

GoogleRestoreWithExternalIp

- Type: REG_DWORD
- Default: True (1)

- Version: 12
- Desc: Restore VM to Google Cloud without using "no-external-ip" parameter d uring google import. No-external-ip parameter allow to create temporary goo gle instances without public ip.

Capacity Tier

CollectCloudEvents

- Type: DWORD
- Value: 0 (default), 1 to enable
- Description: Enables collection of all REST calls during Capacity Tier/Archive T ier operations. **WARNING**: This will produce a lot of logs; treat it like LL6 loggi ng, it should be *targeted*. If you aren't trying to capture a REST call that gets a bad response, you don't need this registry value. **Must be disabled after your test**. See this guide for more info

ArchiveFreezingUsePrivateIpForAmazonAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for Amazon appliances. Useful when client do not have public IPs. For example, client coul d connect by VPN to VPC's subnet which has not Internet access. In this situat ion appliances could be accessed by internal IPs only. **Use this for archiving to AWS issues.**

ArchiveUsePrivateIpForAmazonHelperAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for applian ces for s3 Repository HealthCheck.

ArchiveUsePrivateIpForAzureHelperAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for applian ces for Azure Repository HealthCheck.

ArchiveUsePrivateIpForGoogleHelperAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Description: After changing key to '1' VBR starts to use private IPs for applian ces for Google Repository HealthCheck.

CustomTempDirPath

- Type: REG_SZ
- Description: Changes location for certain SOBR related temp files
- Default value: System Variable for %Temp%
- Should be set on the extent(s) desired. For Linux, set on /etc/VeeamAgentConfig. The veeamagent reads this value to know where it can flush index data from memory.
- In v12, this value effects VeeamAgent operations for Capacity Tier dump generation and Capacity Tier files upload (VBMs, AuxData...) and also several cases in the **Linux** installer service as it's installing packages for other components.
- See also: Bug 715652.
- Mentioned in https://www.veeam.com/kb4283

SkipArchiveIndicesForResync

- Type: Multi-String
- Default Value: N/A
- Description: Indexes listed under this registry value will be skipped with rescans. Each value should be on a new line and consist of BackupId:IndexId pairs.

SOBRArchivingScanPeriod

- Type:REG_DWORD
- Veeam Version: 9.5u4 or later
- Default value: 4
- Description: Value in hours which defines the periodicity of the automatic Offload to Capacity Tier and Archiving to Archive Tier jobs. Both schedules are independent, but the same reg value is used. Set to any integer value. Might be useful if it's known that the offload speed is slow and the customer doesn't like seeing all the offload jobs stack up.

SOBRCapacityTierStartOffloadTimeoutMin

- Type:REG_DWORD
- Veeam Version: 11 or later
- Default value: 240
- Please notice, that key is also related to another SOBRCapacityTierStartOffloadTimeoutMin = **SOBRArchivingScanPeriod** *60. This rule works, if SOBRCapacityTierStartOffloadTimeoutMin is not set.
- Description: Value in minutes which defines timeout for resources availability for Offload job (also error message "Timed out waiting for backup infrastructure resources to become available (14400 sec)")

SOBRArchiveS3DisableTLS

- Type: REG_DWORD
- Veeam Version: 9.5 U4 or later
- Default Value: 0 (disabled)
- Description: Set to 1 to allow connecting to Amazon S3 servers via unsecure HTTP. Needed in test environments and for local S3 storages. Should not be u sed when using non-local S3 storages

SOBRDisableEmailReport

- Type: REG_DWORD
- Veeam Version: 9.5u4 or later
- Default Value: 0 (disabled)
- Description: Key disables automatic report sending for SOBR Status. Report m ay still be manually generated via powershell using the cmdlet **Send-VBRScaleOutBackupRepositoryReport**

S3RequestTimeoutSec

- Type: REG_DWORD
- Default value: 120 (2 minutes)
- Description: Timeout for a single S3 request. Examples:
    - "WinHttpQueryDataAvaliable: 12002: The operation timed out" errors, especially during out MultipleDeleteObjects portion of ArchiveCleanup.
    - HTTP exception: WinHttpSendRequest: 12029: A connection with the server could not be established (not always, dependent on context, check the timestamps)
- Increasing S3RequestTimeoutSec may require you to increase the S3RequestRetryTotalTimeoutSec as well, but it largely depends on the situation. Usually this is not necessary as if you have trouble with a single request running into a timeout the total retry timeout won't do anything here. Overall, before increasing any timeouts you should think about what you're trying to achieve. There are very few scenarios where a longer timeout is indeed required, more often than not a timeout is a symptom of another, more important issue and increasing timeouts is like treating cancer with band-aids.

S3RequestRetryTotalTimeoutSec

- Type: REG_DWORD
- Default value: 1800 (30 minutes)
- Description: Timeout for all the s3 request retries. This is a cumulative timeout that each retry counts against. Whenever Veeam starts an HTTP request retry loop, you will start seeing lines like these in the log:
  WARN|HTTP request failed, retry in [1] seconds, attempt number [2], total retry timeout left: **[1798]** seconds
  The "total retry timeout left" is what this parameter controls. If an HTTP request fails with what we consider to be a retriable error there will be more attempts to send the same request either until it succeeds or until we hit this

global timeout. The retries are performed with an ever increasing pause between them, where the pause is a randomized number in range [t, t+t] with t shifting to the next power of 2 with every retry. For example:
    - First retry will be between 1 and 2 seconds after the failed request,
    - Second retry will be between 2 and 4 seconds after the previous one,
    - Third retry will occur after another 4-8 seconds have passed etc.
- The pauses between retries cap out at 120 seconds and if there is less than 120 seconds left until TotalTimeoutSec has run out, the last retry will occur sooner to fit within the total timeout. Pay attention to the thread performing the retries. HTTP request handling is an asynchronous process and there are multiple threads doing it. If at least 1 thread runs out of the TotalTimeoutSec - this will spell the end for all of them (and this makes perfect sense). When reading logs with the retry warnings, make sure to pay attention to the thread you are following. Look at the attempt number as well. If there are 50 lines like the one cited above - that's hardly an issue, just 50 failed requests that succeeded after first retry. This adds at most 100 seconds to the processing time which is technically a lot but oftentimes can be negligible in the grand scheme of things.

S3ConcurrentTaskLimit

ETS Note:
Before editing this value, make sure the Object Storage Repository tasks are not set to Unlimited.
Reduce Object Storage Repository tasks before using this option.

- Type: REG_DWORD
- Default value: 64
- Description: Amount of parallel HTTP requests for data upload (tasks) to the S 3-compatible object storage (archive tier). Applied either on VBR server and a pplied automatically to all extents/gates, or can be set specifically on the ext ent/gate. Key on VBR server has a higher priority. (NOT APPLICABLE TO AZUR E)
- Does not affect number of offload tasks, only controls HTTP requests within a given task. Use if we get an API Too Many Requests issue or disconnect. Will n ot help with Restores to AWS. Value is applied to agents when they start and maintained for the lifetime of the agent. New tasks will automatically take the new value. (Note: **Tasks**, not jobs. So if you change it mid-offload, the Gate a gents for offload will not use the new value, but the Gate.Cleanup agent will)
- Highly recommended to upgrade to **V11** prior usage. Streams calculation has been improved there. In v10 might have no effect.

S3VerboseLoggingMode

- Type: REG_DWORD
- Default value: 0

- **For AWS, S3 Compatible, and Wasabi only.** *For Azure, see AzureBlobVerboseLoggingMode below.*
- This needs to be set on S3 gateways. When value is set to 1, VeeamAgent logs S3 HTTP requests and responses. Careful: this may generate a lot of logs
- Available starting with **v12**. Available for v11a in a custom build of VeeamAgent.
- Consider that this parameter generates **a lot** of extra information in log files. Consider using **AgentMaxLogCount** and **AgentMaxLogSize** parameters to make sure you actually manage to capture what you are looking for. **Make sure to disable verbose logging and revert logging changes as soon as you've collected the data you need.**

ArchiveFreezingUsePrivateIpForAzureAppliance

- Type: REG_DWORD
- Default: 0 (decimal)
- Description: Works for Archive Tier proxy appliance. Forces Veeam to connect to the private IP of the Archive Tier Proxy Appliance VM. If Expressroute or other VPN to Azure is in place, this key is required. **Use this for Archiving to Azure issues**

ArchiveFreezingApplianceRootVolumeSize

- Type: REG_DWORD
- Default: 30 (decimal)
- Description: Works for Amazon and Azure Archive Tier proxy appliances. Sets the root volume size for Archive tier proxy appliance, can be used if default 30 GB size is too low. See also bug 299060. **Use this for Archiving to Azure or Amazon issues**

AzureRestApiRetryCount

- Type: REG_DWORD
- Default value: 20
- Description: Number of times we retry Azure calls

AzureRestApiRetryTimeoutSec

- Type: REG_DWORD
- Default value: 30 (seconds)
- Description: Timeout between retries

AzureConcurrentTaskLimit

ETS Note:
Before editing this value, make sure the Object Storage Repository tasks are not set to Unlimited.
Reduce Object Storage Repository tasks before using this option.

- Type: REG_DWORD

- Default value: 64
- Description: Amount of parallel HTTP requests for data upload (tasks) to Azur e archive tier. Applied either on VBR server and applied automatically to all e xtents/gates, or can be set specifically on the extent/gate. Key on VBR server has a higher priority. Exactly the same as S3ConcurrentTaskLimit, but for Azur e. Everything that applies to S3ConcurrentTaskLimit applies to this value, but it's exclusive to Azure.

AzureBlobVerboseLoggingMode

- Type: REG_DWORD
- Default Value: 0
- **For Azure type object storage only.** *For AWS, S3, or Wasabi, see S3Verbos eLoggingMode above.*
- Description: The key is set on Azure Blob gateways. When value is 1 VeeamA gent logs Azure Blob requests\response. Be careful - the key may generate m any logs.
- For Linux, use **/etc/VeeamAgentConfig**: AzureBlobVerboseLoggingMode = 1
- Available starting with **v12 only.**
- Consider that this parameter generates **a lot** of extra information in log files. Consider using **AgentMaxLogCount** and **AgentMaxLogSize** parameters to make sure you actually manage to capture what you are looking for. **Make sure to disable verbose logging and revert logging changes as soon as you've collected the data you need.**

CapacityExtentRestoreSlotsCount

- Type: REG_DWORD
- Default value: 4 (concurrent restore slots)
- Version: 10a only. Will be invalidated by UI option in v11 and later.
- Description: How many restores are possible from Object Storage Repositorie s not attached to a SOBR

StorageOffloadLockConflictResolveTimeoutInSec

- Type: REG_DWORD
- Default value: 18000 (5 * 60 * 60)
- Version: 11aCP3Stage2 and later
- Description: Controls the source job waiting time for non-interruptible tiering operations (like a cleanup or immutabilty increase).

RetrievingHostCertificateTimeoutSec

- Type: REG_DWORD
- Default value: 5
- Version: 12 and later
- Description: Timeout for Network.RetrieveSslCertificate agent request, increase if agent can't retrieve the certificate from s3 fast enough

Background Checkpoint Removal
There are other options that can be set (which may be seen in logs), however these require discussion or escalation before they can be changed.
They will not be listed here.

CheckpointRemovalJobStartTimeHours

- Type: REG_DWORD
- Default Value: 3
- Version: 12.2
- Description: The background job restart time hour. Expressed as the hour on a 24h clock. Example: 3 = 3am (default), 14 = 2pm.

CheckpointRemovalJobStartTimeMins

- Type: REG_DWORD
- Default Value: 0
- Version: 12.2
- Description: The background job restart time minute. Expressed as the minute in the hour.

External Repositories

For this section, please double check that you are indeed looking to modify behavior of **External Repositories.** Do not confuse this with Object Storage Repositories. More values available on BrainStorage, but consult with T2 first before trying to impl ement randomly

ExternalRepositoryCacheWindowsRoot

- Type: REG_SZ
- Default Value:C:\ProgramData\Veeam\ExternalCache
- Version: 9.5u4 and later
- Description: Change path for Cache Location on Gateway Server specified for the External Repository. Must be full and proper Windows Path. Value is **GLOB AL**.

ExternalRepositoryCacheLinuxRoot

- Type: REG_SZ
- Default Value: /var/veeam/ExternalCache
- Version: 9.5u4 and later
- Description: Change path for Cache Location on Gateway Server specified for the External Repository. Must be full and proper Windows Path. Value is **GLOB AL**.

Malware Detection
This section is for malware detection options added in VBR 12. Does not apply to earlier versions.

MalwareScanDisableExtensionScanEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent ExtensionScan events from being raised - while Guest Indexing Data scan option is active.

MalwareScanDisableRenamedFilesEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent RenamedFiles events from being raised - while Guest Indexing Data scan option is active.

MalwareScanDisableDeletedUsefulFilesEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent BulkDeletion events from being raised - while Guest Indexing Data scan option is active.

MalwareScanDisableRansomNotesEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent RansomNotes events from being raised - while Inline entropy analysis option is active.

MalwareScanDisableEncryptionDataEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent EncryptedFile events from being raised - while Inline entropy analysis option is active.

MalwareScanDisableYaraEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent Yara events from being raised - while Rule-based detection option is active.

MalwareScanDisableAntivirusEvents

- Type: REG_DWORD
- Default value: 0 (disabled)
- Description: When set to 1, the option will prevent AntivirusScan events from being raised - while Antivirus scan option is active.
- no_karma
- Edit Labels

3 Comments

1.

Mihai Stanculescu

Can also UIMaxConcurrentTasks reg key be added in the list? (https://forums.veeam.com/veeam-backup-replication-f2/feature-request-increase-concurrent-task-count-t76159.html). Seems to be used for increasing concurrent tasks more than 128

- Reply
- Sep 25, 2024

2.

Dylan Locke

Hi Team, since 12.2 and the change in how Checkpoint removal is done as it's a background task, in the logs I see the following registry keys mentioned:
Registry key CheckpointRemovalParallelism is 512
Registry key ObjectStorageDirectModeCheckpointRemovalTaskCount is 16
Registry key CheckpointRemovalJobStartTimeHours is 3
Registry key CheckpointRemovalJobStartTimeMins is 0
is it possible for these to be added to the list with a summary of each key, their names give away most of what they do but I was thinking a description of them and use case might be best.

- Reply
- Oct 09, 2024
-

Justin Hendren

I can add the following as they are allowed to be changed, the rest require RnD discussion (plus a couple more you do not know about).
For those with RnD, they *should not be changed without discussion*. They limit the total parallel deletion tasks on the VBR server, and the number of parallel deletion tasks per host (repository). These can cause issues.

These I can add as they were mentioned in training and have been used in other cases.
CheckpointRemovalJobStartTimeHours
CheckpointRemovalJobStartTimeMins

- Reply
- Oct 10, 2024

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